



STIC Search Report

EIC 1700

STIC Database Tracking Number: 145191

TO: Eisa Elhilo
Location: REM 9A60
Art Unit : 1751
February 18, 2005

Case Serial Number: 10/679619

From: Kathleen Fuller
Location: EIC 1700
REMSSEN 4B28
Phone: 571/272-2505
Kathleen.Fuller@uspto.gov

Search Notes



STIC Search Results Feedback Form

EIC17000

Questions about the scope or the results of the search? Contact *the EIC searcher or contact:*

Kathleen Fuller, EIC 1700 Team Leader
571/272-2505 REMSEN 4B28

Voluntary Results Feedback Form

- I am an examiner in Workgroup: Example: 1713
➤ Relevant prior art **found**, search results used as follows:

- ☐ 102 rejection
- ☐ 103 rejection
- ☐ Cited as being of interest.
- ☐ Helped examiner better understand the invention.
- ☐ Helped examiner better understand the state of the art in their technology.

Types of relevant prior art found:

- ☐ Foreign Patent(s)
- ☐ Non-Patent Literature
(journal articles, conference proceedings, new product announcements etc.)

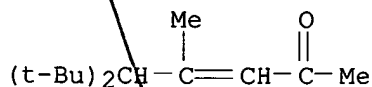
➤ Relevant prior art **not found**:

- ☐ Results verified the lack of relevant prior art (helped determine patentability).
- ☐ Results were not useful in determining patentability or understanding the invention.

Comments:

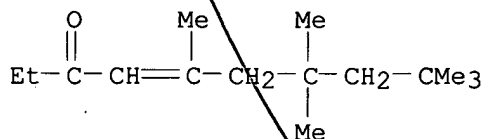
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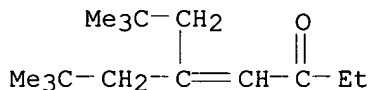
RN 89272-36-6 HCAPLUS

CN 4-Decen-3-one, 5,7,7,9,9-pentamethyl- (9CI) (CA INDEX NAME)



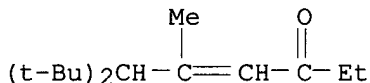
RN 89272-39-9 HCAPLUS

CN 4-Octen-3-one, 5-(2,2-dimethylpropyl)-7,7-dimethyl- (9CI) (CA INDEX NAME)



RN 89272-42-4 HCAPLUS

CN 4-Octen-3-one, 6-(1,1-dimethylethyl)-5,7,7-trimethyl- (9CI) (CA INDEX NAME)



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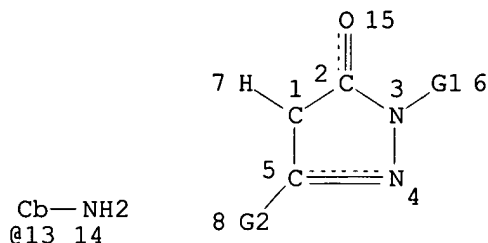
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FILE COVERS 1907 - 18 Feb 2005 VOL 142 ISS 9
FILE LAST UPDATED: 17 Feb 2005 (20050217/ED)

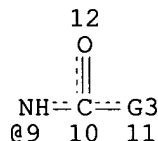
This file contains CAS Registry Numbers for easy and accurate substance identification.

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L5

STR



1280 structures from this query



VAR G1=AK/CB
VAR G2=CB/9
VAR G3=13/AK
NODE ATTRIBUTES:
CONNECT IS E2 RC AT 4
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 15

STEREO ATTRIBUTES: NONE

L7 1280 SEA FILE=REGISTRY SSS FUL L5
L8 604 SEA FILE=HCAPLUS ABB=ON L7
L10 31 SEA FILE=HCAPLUS ABB=ON L8(L) (HAIR OR KERAT?)
L11 30 SEA FILE=HCAPLUS ABB=ON L10 AND COSMETIC?/SC,SX

=> d l11 bib abs ind hitstr 1-30

L11 ANSWER 1 OF 30 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 2003:282162 HCAPLUS
DN 138:292389
TI Oxidative hair dyes containing aromatic dicarbonyl compounds, other dyes and color intensifiers
IN Gross, Wibke; Oberkobusch, Doris; Hoeffkes, Horst
PA Henkel Kommanditgesellschaft Auf Aktien, Germany
SO Eur. Pat. Appl., 23 pp.
CODEN: EPXXDW

DT Patent
LA German
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1300134	A2	20030409	EP 2002-21429	20020925
	EP 1300134	A3	20030423		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
	DE 10148843	A1	20030410	DE 2001-10148843	20011004
PRAI	DE 2001-10148843	A	20011004		

OS MARPAT 138:292389

AB The invention concerns hair dyes that contain aromatic dicarbonyl compds. and substances selected from the group of (a) CH-acids; (b) primary and secondary aromatic amines, hydroxydes, nitrogen-containing heterocycles; further

the compns. can contain color intensifiers and direct dyes. Thus in a hair dyeing experiment 3 mmol 1,2,3,3-tetramethylindolinium iodide and 0.41 g sodium acetate were mixed in 30 g water; 3 mmol 4-dimethylamino-6-methyl-isophthalaldehyde were added and pH6 was set; the solution was used to dye hair; red-violet color was obtained.

IC ICM A61K007-13

ICS D06P003-14

CC 62-3 (Essential Oils and **Cosmetics**)

ST oxidative hair dye arom dicarbonyl compd

IT Surfactants

(anionic; oxidative hair dyes containing aromatic dicarbonyl compds., other dyes and color intensifiers)

IT Amines, biological studies

Dicarbonyl compounds

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)

(aromatic; oxidative hair dyes containing aromatic dicarbonyl compds.,

other dyes

and color intensifiers)

IT Amines, biological studies

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)

(aryl, heterocyclic; oxidative hair dyes containing aromatic dicarbonyl compds., other dyes and color intensifiers)

IT Amines, biological studies

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)

(aryl, secondary; oxidative hair dyes containing aromatic dicarbonyl

compds.,

other dyes and color intensifiers)

IT Dyes

(direct; oxidative hair dyes containing aromatic dicarbonyl compds., other dyes and color intensifiers)

IT Hair preparations

(dyes, oxidative; oxidative hair dyes containing aromatic dicarbonyl

compds.,

other dyes and color intensifiers)

IT Hair preparations

(dyes; oxidative hair dyes containing aromatic dicarbonyl compds., other

dyes

and color intensifiers)

IT Surfactants

(nonionic; oxidative hair dyes containing aromatic dicarbonyl compds., other dyes and color intensifiers)

IT Oxidizing agents

(oxidative hair dyes containing aromatic dicarbonyl compds., other dyes and

color intensifiers)

IT Aromatic compounds
Heterocyclic compounds
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(oxidative hair dyes containing aromatic dicarbonyl compds., other dyes and color intensifiers)

IT Surfactants
(zwitterionic; oxidative hair dyes containing aromatic dicarbonyl compds., other dyes and color intensifiers)

IT 50-21-5D, salts of 59-48-3, Oxindole 62-53-3, Aniline, biological studies 64-18-6D, Formic acid, salts of 64-19-7D, Acetic acid, salts of 65-49-6, 4-Aminosalicylic acid 67-52-7, Barbituric acid 71-00-1, L-Histidine, biological studies 77-92-9D, salts of 79-09-4D, Propanoic acid, salts of 79-14-1D, salts of 83-07-8, 4-Aminoantipyrine 83-30-7, 2,4,6-Trihydroxybenzoic acid 83-33-0, Indan-1-one 83-56-7, 1,5-Dihydroxynaphthalene 84-65-1D, Anthraquinone, derivs. 87-02-5 87-66-1, Pyrogallol 87-69-4D, salts of 88-21-1, 2-Aminobenzenesulfonic acid 88-74-4, 2-Nitroaniline 89-25-8, 1-Phenyl-3-methylpyrazol-5-one 89-57-6, 5-Aminosalicylic acid 89-86-1, 2,4-Dihydroxybenzoic acid 90-05-1, 2-Methoxyphenol 90-15-3, 1-Naphthol 90-20-0 91-29-2 91-95-2, 3,3',4,4'-Tetraaminodiphenyl 92-44-4, 2,3-Dihydroxynaphthalene 92-65-9 93-05-0 95-54-5, o-Phenylenediamine, biological studies 95-55-6, 2-Aminophenol 95-70-5, 2,5-Diaminotoluol 95-88-5, 4-Chlororesorcin 96-91-3, Picramic acid 96-93-5 98-37-3, 3-Amino-4-hydroxy-benzenesulfonic acid 98-79-3, Pyrrolidone-5-carboxylic acid 99-05-8, 3-Aminobenzoic acid 99-07-0, 3-Dimethylaminophenol 99-31-0, 5-Aminoisophthalic acid 99-50-3, 3,4-Dihydroxybenzoic acid 99-56-9, 1,2-Diamino-4-nitrobenzene 99-98-9 100-01-6, 4-Nitroaniline, biological studies 101-54-2, N-Phenyl-1,4-phenylenediamine 101-77-9 101-80-4, 4,4'-Diaminodiphenylether 102-32-9, 3,4-Dihydroxyphenylacetic acid 102-33-0 106-50-3, p-Phenylenediamine, biological studies 107-92-6D, Butanoic acid, salts of 108-45-2, m-Phenylenediamine, biological studies 108-46-3, Resorcin, biological studies 108-72-5, 1,3,5-Triaminobenzene 108-73-6, Phloroglucin 109-00-2, 3-Hydroxypyridine 109-52-4D, Pentanoic acid, salts of 110-85-0, Piperazine, biological studies 110-86-1, Pyridine, biological studies 110-89-4, Piperidine, biological studies 116-63-2 118-12-7 118-70-7, 4,5,6-Triaminopyrimidine 118-92-3, 2-Aminobenzoic acid 119-34-6 119-59-5, 4,4'-Diaminodiphenylsulfoxide 119-70-0, 4,4'-Diaminodiphenylamine-2-sulfonic acid 121-47-1, 3-Aminobenzenesulfonic acid 121-57-3, 4-Aminobenzenesulfonic acid 123-30-8, 4-Aminophenol 123-31-9, Hydroquinone, biological studies 123-75-1, Pyrrolidine, biological studies 126-81-8 139-65-1, 4,4'-Diaminodiphenylsulfide 141-84-4, Rhodanine 141-86-6, 2,6-Diaminopyridine 142-08-5, 2-Hydroxypyridine 142-62-1D, Hexanoic acid, salts of 147-85-3, Proline, biological studies 149-91-7, Gallic acid, biological studies 150-13-0, 4-Aminobenzoic acid 150-19-6, 3-Methoxyphenol 150-75-4, 4-Methylaminophenol 150-76-5, 4-Methoxyphenol 156-81-0, 2,4-Diaminopyrimidine 288-13-1, Pyrazole 288-32-4, Imidazole, biological studies 288-88-0, 1H-1,2,4-Triazole 452-58-4, 2,3-Diaminopyridine 462-08-8, 3-Aminopyridine 480-66-0 488-87-9, 2,5-Dimethylresorcin 496-73-1, 4-Methylresorcin 498-94-2, Piperidine-4-carboxylic acid 498-95-3, Piperidine-3-carboxylic acid 500-85-6D, Indophenol, derivs. 504-15-4 504-17-6, Thiobarbituric acid 504-24-5, 4-Aminopyridine 504-29-0, 2-Aminopyridine 526-95-4D, D-Gluconic acid, salts of 533-31-3, 3,4-Methylenedioxyphenol 533-73-3, Hydroxyhydroquinone 535-75-1, Piperidine-2-carboxylic acid 535-87-5, 3,5-Diaminobenzoic acid 537-65-5, 4,4'-Diaminodiphenylamine 553-86-6, 2-Coumaranone 570-24-1, 6-Nitro-o-toluidine 578-66-5, 8-Aminoquinoline

580-17-6, 3-Aminoquinoline 580-22-3, 2-Aminoquinoline 582-17-2,
2,7-Dihydroxynaphthalene 591-27-5, 3-Aminophenol 603-81-6,
2,3-Diaminobenzoic acid 605-59-4 606-23-5, Indan-1,3-dione 606-55-3
606-57-5, 2-Amino-1-nitronaphthalene 608-08-2, 3-Indoxyl acetate
608-25-3, 2-Methylresorcin 608-97-9, Benzenepentamine 609-20-1
610-74-2, 2,5-Diaminobenzoic acid 610-81-1 611-03-0,
2,4-Diaminobenzoic acid 611-98-3, 4,4'-Diaminobenzophenone 614-16-4,
Benzoylacetonitrile 614-82-4, 2,4-Dihydroxyphenylacetic acid 615-66-7
615-71-4, 1,2,4-Triaminobenzene 616-45-5, Pyrrolidone 616-47-7,
1-Methylimidazole 619-05-6, 3,4-Diaminobenzoic acid 626-64-2,
4-Hydroxypyridine 636-25-9, 2,5-Diaminophenol 873-74-5,
4-Aminobenzonitrile 876-87-9 934-22-5, 5-Aminobenzimidazole
1004-74-6, 2,4,5,6-Tetraaminopyrimidine 1004-75-7, 4-Hydroxy-2,5,6-
triaminopyrimidine 1080-74-6 1123-55-3, 7-Aminobenzothiazole
1123-93-9, 5-Aminobenzothiazole 1125-60-6, 5-Aminoisoquinoline
1197-55-3, 4-Aminophenylacetic acid 1455-77-2, 3,5-Diamino-1,2,4-
triazole 1571-72-8, 3-Amino-4-hydroxy-benzoic acid 1820-80-0,
3-Aminopyrazole 2374-03-0, 4-Amino-3-hydroxy-benzoic acid 2654-52-6
2688-48-4, 5-Hydroxy-2-Coumaranone 2688-49-5 2785-06-0 2835-95-2,
2-Methyl-5-aminophenol 2835-98-5 2835-99-6, 4-Amino-3-methylphenol
2836-04-6 2845-88-7 2871-01-4 3119-93-5 3131-52-0,
5,6-Dihydroxyindole 3158-63-2, 1,3-Dimethylthiobarbituric acid
3167-49-5, 6-Aminonicotinic acid 3204-61-3, 1,2,4,5-Tetraaminobenzene
3240-72-0, 2,4-Dihydroxy-5,6-diaminopyrimidine 3342-78-7,
2-Aminophenylacetic acid 3468-11-9 3769-62-8, Gallion 3812-32-6D,
Carbonate, salts of 4318-76-7, 2,5-Diaminopyridine 4331-29-7,
7-Aminobenzimidazole 4444-26-2, Benzenehexamine 4928-43-2,
2-Dimethylamino-5-aminopyridine 5007-67-0, 3,3',4,4'-
Tetraaminobenzophenone 5099-39-8 5131-58-8 5192-03-0, 5-Aminoindole
5192-04-1, 7-Aminoindole 5192-23-4, 4-Aminoindole 5217-47-0,
1,3-Diethylthiobarbituric acid 5260-37-7 5307-02-8, 2,5-Diaminoanisole
5307-14-2, 1,4-Diamino-2-nitrobenzene 5318-27-4, 6-Aminoindole
5345-47-1, 2-Aminonicotinic acid 5418-63-3 5434-20-8, 3-Aminophthalic
acid 5466-88-6, 2H-1,4-Benzoxazin-3(4H)-one 5718-83-2,
Rhodanine-3-acetic acid 5850-35-1, Acid Blue 29 5959-52-4 6201-65-6,
2-Chlororesorcin 6247-27-4, Mordant Brown 4 6259-50-3 6271-44-9
6358-09-4, 2-Amino-6-chloro-4-nitrophenol 6399-72-0 6628-04-2,
4-Aminoquinaldine 6634-82-8 6967-12-0, 6-Aminoindazole 7218-02-2
7336-20-1 7429-90-5D, Aluminum, derivs 7439-89-6D, Iron, derivs
7439-93-2D, Lithium, derivs 7439-95-4D, Magnesium, derivs 7439-96-5D,
Manganese, derivs 7440-09-7D, Potassium, derivs 7440-23-5D, Sodium,
derivs 7440-24-6D, Strontium, derivs 7440-39-3D, Barium, derivs
7440-48-4D, Cobalt, derivs 7440-50-8D, Copper, derivs 7440-66-6D,
Zinc, derivs 7440-70-2D, Calcium, derivs 7575-35-1 7722-84-1,
Hydrogen peroxide, biological studies 7749-47-5, 2-Amino-4-methoxy-6-
methylpyrimidine 7768-28-7, 2-(2-Hydroxyethyl)-phenol 10173-66-7
13066-97-2 13598-36-2D, Phosphonic acid, salts of 13754-19-3,
4,5-Diaminopyrimidine 14265-44-2D, Phosphate, salts of 14268-66-7,
3,4-Methylenedioxyaniline 14338-36-4, 3-Aminophenylacetic acid
14808-79-8D, Sulfate, salts of 14933-76-7 16082-33-0,
3,5-Diaminopyrazole 16214-27-0, Indan-1,2-dione 16859-86-2
16867-03-1, 2-Amino-3-hydroxypyridine 17672-22-9 19335-11-6,
5-Aminoindazole 20048-92-4

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)

(oxidative hair dyes containing aromatic dicarbonyl compds., other dyes and
color intensifiers)

IT 20103-09-7 22715-34-0, 2-Hydroxy-4,5,6-triaminopyrimidine 23244-87-3,
2,4,5-Triaminopyridine 23894-07-7 24905-87-1 26216-16-0 27841-29-8
28020-38-4, 2,3-Diamino-6-methoxypyridine 29539-03-5,

5,6-Dihydroxyindoline 29705-39-3 31835-64-0, 3-Amino-3'-nitrobiphenyl
31905-57-4D, Nitrophenylenediamine, derivs. 32479-73-5,
1,3-Diethylbarbituric acid 35490-72-3 36518-76-0 37705-82-1,
2,4-Diaminobenzonitrile **41927-50-8** 41946-53-6 42952-29-4
43093-74-9D, Nitroaminophenol, derivs. 50610-28-1 50610-33-8
51387-92-9 52943-88-1, 1-Phenyl-3-methyl-4,5-diaminopyrazole
55302-96-0 55952-56-2 56932-44-6 58480-17-4 60126-36-5
61224-35-9 61693-42-3, 3-Amino-2,4-dichlorophenol 62496-02-0,
2-Methylamino-4,5,6-triaminopyrimidine 63969-46-0, Bis-(5-amino-2-
hydroxyphenyl)-methane 64693-48-7 64993-07-3, 5-Amino-6-nitrobenzo-1,3-
dioxole 66566-48-1 66635-40-3, 4,4'-Diaminostilbene dihydrochloride
67608-58-6 67608-59-7 68391-32-2 69825-83-8, 6-Nitro-2,5-
diaminopyridine 70643-19-5, 2,4-Diaminophenoxyethanol 71134-97-9
77484-77-6 79352-72-0, 2-Aminomethyl-4-aminophenol 81892-72-0,
1,3-Bis-(2,4-diaminophenoxy)-propane 82576-75-8, HC Violet 1
83763-47-7 84540-47-6, 2,6-Dihydroxy-3,4-dimethylpyridine 84540-50-1
85561-52-0, 1-Phenyl-4,5-diaminopyrazole 85679-78-3,
2,6-Dimethoxy-3,5-diaminopyridine 85926-99-4, 4-Hydroxyindoline
90817-34-8 93841-24-8 93923-57-0 95576-89-9, HC Red 10 99855-61-5
104333-09-7, 2-Hydroxymethyl-4-aminophenol 110102-86-8 110952-46-0
114260-09-2 114402-54-9, 1,3-Bis-(4-aminophenylamino)-propane
115423-85-3 115423-86-4 117907-43-4 126335-43-1,
2-(2,5-Diaminophenoxy) ethanol 128729-30-6, 1,3-Bis-[N-(4-aminophenyl)-2-
hydroxyethylamino]-2-propanol 130582-56-8, 1,3-Bis-(4-aminophenylamino)-
2-propanol 137290-78-9 137290-86-9 141614-04-2 141614-05-3
145092-00-8, 3-Amino-5-hydroxypyrazole 146658-65-3 149330-25-6
155601-17-5, 1-(2-Hydroxyethyl)-4,5-diaminopyrazole 159519-79-6,
Brenzcatechin 159661-40-2 159661-41-3 159661-42-4 159661-43-5
159661-45-7, 1,8-Bis-(2,5-diaminophenoxy)-3,6-dioxaoctane 211872-02-5
220118-56-9 313219-61-3 346593-13-3, 3-Amino-4-nitro-acenaphthene
346684-81-9 375856-52-3 503856-02-8 503856-16-4 503856-17-5
503856-18-6 506436-20-0 506436-21-1 506436-47-1

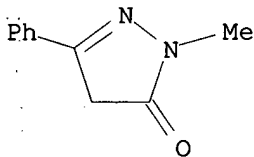
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(oxidative **hair** dyes containing aromatic dicarbonyl compds., other
dyes and color intensifiers)

IT **41927-50-8**

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(oxidative **hair** dyes containing aromatic dicarbonyl compds., other
dyes and color intensifiers)

RN 41927-50-8 HCAPLUS

CN 3H-Pyrazol-3-one, 2,4-dihydro-2-methyl-5-phenyl- (9CI) (CA INDEX NAME)



L11 ANSWER 2 OF 30 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2003:282160 HCAPLUS

DN 138:308933

TI Oxidative hair dyes containing dicyanmethylene indane derivatives, other
dyes and color intensifiers

IN Moeller, Hinrich; Oberkobusch, Doris; Hoeffkes, Horst

PA Henkel Kommanditgesellschaft Auf Aktien, Germany

KATHLEEN FULLER EIC 1700 REMSEN 4B28 571/272-2505

SO Eur. Pat. Appl., 24 pp.

CODEN: EPXXDW

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1300132	A2	20030409	EP 2002-21427	20020925
	EP 1300132	A3	20040407		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
	DE 10148849	A1	20030417	DE 2001-10148849	20011004
PRAI	DE 2001-10148849	A	20011004		

OS MARPAT 138:308933

AB The invention concerns hair dyes that contain dicyanmethylenindane derivs. and optionally substances selected from the group of (a) primary and secondary aromatic amines, hydroxydes, nitrogen-containing heterocycles;

(b)

amino acids; (c) 2-9 amino acid-containing oligopeptides; (d) CH-acids; (d) aryl or heteroaryl aldehydes or ketones; (f) quaternary ammonium compds. Thus in a hair dyeing experiment 5 mmol 1,3-bis(dicyanmethylenindane), 5 mmol 4-dimethylaminobenzaldehyde were mixed with 5 mmol sodium acetate in 50 mL water at 50°C; pH 9 was set and the solution was used to dye hair; intense blue color was obtained.

IC ICM A61K007-13

ICS D06P003-14

CC 62-3 (Essential Oils and **Cosmetics**)

ST oxidative hair dye dicyanmethylenindane deriv

IT Proteins

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)

(almond; oxidative hair dyes containing dicyanmethylenindane derivs., other dyes and color intensifiers)

IT Surfactants

(anionic; oxidative hair dyes containing dicyanmethylenindane derivs., other dyes and color intensifiers)

IT Aldehydes, biological studies

Amines, biological studies

Ketones, biological studies

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)

(aromatic; oxidative hair dyes containing dicyanmethylenindane derivs., other dyes and color intensifiers)

IT Dyes

(direct; oxidative hair dyes containing dicyanmethylenindane derivs., other dyes and color intensifiers)

IT Hair preparations

(dyes, oxidative; oxidative hair dyes containing dicyanmethylenindane derivs., other dyes and color intensifiers)

IT Hair preparations

(dyes; oxidative hair dyes containing dicyanmethylenindane derivs., other dyes and color intensifiers)

IT Aldehydes, biological studies

Ketones, biological studies

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)

(heteroaryl; oxidative hair dyes containing dicyanmethylenindane derivs., other dyes and color intensifiers)

IT Surfactants

(nonionic; oxidative hair dyes containing dicyanmethylenindane derivs., other dyes and color intensifiers)

IT Peptides, biological studies

- RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(oligopeptides; oxidative hair dyes containing dicyanmethylen indane
derivs., other dyes and color intensifiers)
- IT Oxidizing agents
(oxidative hair dyes containing dicyanmethylen indane derivs., other dyes
and color intensifiers)
- IT Amino acids, biological studies
Aromatic compounds
Carbonyl compounds (organic), biological studies
Caseins, biological studies
Collagens, biological studies
Elastins
Glutens
Heterocyclic compounds
Keratins
Quaternary ammonium compounds, biological studies
- RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(oxidative hair dyes containing dicyanmethylen indane derivs., other dyes
and color intensifiers)
- IT Proteins
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(soybean; oxidative hair dyes containing dicyanmethylen indane derivs.,
other dyes and color intensifiers)
- IT Surfactants
(zwitterionic; oxidative hair dyes containing dicyanmethylen indane
derivs., other dyes and color intensifiers)
- IT 56-87-1, L-Lysine, biological studies 59-48-3, Oxindole 59-92-7, Dopa,
biological studies 60-18-4, L-Tyrosine, biological studies 60-32-2,
6-Aminocaproic acid 62-53-3, Aniline, biological studies 63-91-2,
L-Phenylalanine, biological studies 65-49-6, 4-Aminosalicylic acid
66-72-8, Pyridoxal 67-52-7, Barbituric acid 70-26-8, L-Ornithine
70-70-2 71-00-1, L-Histidine, biological studies 73-22-3,
L-Tryptophan, biological studies 74-79-3, L-Arginine, biological studies
83-07-8, 4-Amino-2,3-dimethyl-1-phenyl-3-pyrazolin-5-one 83-30-7,
2,4,6-Trihydroxybenzoic acid 83-33-0, Indanone 83-56-7,
1,5-Dihydroxynaphthalene 84-83-3 85-26-7, Salicil 87-02-5,
7-Amino-4-hydroxynaphthalene-2-sulfonic acid 87-66-1, Pyrogallol
88-21-1, 2-Aminobenzene sulfonic acid 88-74-4, 2-Nitroaniline 89-25-8,
1-Phenyl-3-methylpyrazol-5-one 89-57-6, 5-Aminosalicylic acid 89-84-9
89-86-1, 2,4-Dihydroxybenzoic acid 90-02-8, Salicylaldehyde, biological
studies 90-05-1, 2-Methoxyphenol 90-15-3, 1-Naphthol 90-20-0,
4-Amino-5-hydroxynaphthalene-2,7-disulfonic acid 90-44-8, Anthrone
91-29-2 91-56-5, Isatin 91-56-5D, 1H-Indole-2,3-dione, derivs.
91-95-2, 3,3',4,4'-Tetraaminodiphenyl 92-44-4, 2,3-Dihydroxynaphthalene
92-65-9 93-05-0 93-55-0, Propiophenone 95-01-2, 2,4-
Dihydroxybenzaldehyde 95-54-5, o-Phenylenediamine, biological studies
95-55-6, 2-Aminophenol 95-70-5, 2,5-Diaminotoluene 95-88-5,
4-Chlororesorcin 96-91-3, Picramic acid 96-93-5 97-51-8,
2-Hydroxy-5-nitrobenzaldehyde 98-01-1, Furfural, biological studies
98-03-3, Thiophene-2-aldehyde 98-37-3, 3-Amino-4-hydroxybenzene sulfonic
acid 98-79-3, Pyrrolidone-5-carboxylic acid 98-86-2, Acetophenone,
biological studies 99-05-8, 3-Aminobenzoic acid 99-07-0 99-31-0,
5-Aminoisophthalic acid 99-50-3, 3,4-Dihydroxybenzoic acid 99-56-9,
1,2-Diamino-4-nitrobenzene 99-61-6, 3-Nitrobenzaldehyde 99-92-3
99-93-4, 4-Hydroxyacetophenone 99-98-9 100-01-6, 4-Nitroaniline,
biological studies 100-10-7, 4-Dimethylaminobenzaldehyde 101-54-2,
N-Phenyl-1,4-phenylenediamine 101-77-9, 4,4'-Diaminodiphenylmethane
101-80-4, 4,4'-Diaminodiphenylether 102-32-9, 3,4-Dihydroxyphenylacetic
acid 106-50-3, p-Phenylenediamine, biological studies 107-95-9,

β -Alanine 108-45-2, m-Phenylenediamine, biological studies
108-46-3, Resorcin, biological studies 108-72-5, 1,3,5-Triaminobenzene
108-73-6, Phloroglucin 109-00-2, 3-Hydroxypyridine 110-85-0,
Piperazine, biological studies 110-86-1, Pyridine, biological studies
110-89-4, Piperidine, biological studies 116-63-2, 4-Amino-3-
hydroxynaphthalene-1-sulfonic acid 117-39-5, Quercetin 118-12-7,
1,3,3-Trimethyl-2-methyleneindoline 118-70-7, 4,5,6-Triaminopyrimidine
118-92-3, 2-Aminobenzoic acid 118-93-4 119-34-6, 4-Amino-2-nitrophenol
119-59-5, 4,4'-Diaminodiphenylsulfoxide 119-61-9, Benzophenone,
biological studies 119-70-0, 4,4'-Diaminodiphenylamine-2-sulfonic acid
120-21-8, 4-Diethylaminobenzaldehyde 120-46-7, 2-Benzoylacetophenone
120-57-0, Piperonal 120-80-9, Pyrocatechin, biological studies
121-33-5, Vanillin 121-47-1, 3-Aminobenzene sulfonic acid 121-57-3,
4-Aminobenzene sulfonic acid 121-71-1 123-08-0, 4-Hydroxybenzaldehyde
123-30-8, 4-Aminophenol 123-31-9, Hydroquinone, biological studies
123-75-1, Pyrrolidine, biological studies 131-56-6, 2,4-
Dihydroxybenzophenone 134-81-6, Benzil 139-65-1, 4,4'-
Diaminodiphenylsulfide 141-84-4, Rhodanine 141-86-6,
2,6-Diaminopyridine 142-08-5, 2-Hydroxypyridine 147-85-3, L-Proline,
biological studies 149-91-7, Gallic acid, biological studies 150-13-0,
4-Aminobenzoic acid 150-19-6, 3-Methoxyphenol 150-75-4,
4-Methylaminophenol 150-76-5, 4-Methoxyphenol 156-81-0,
2,4-Diaminopyrimidine 244-42-8, 3-Azafluorene 288-13-1, Pyrazole
288-32-4, Imidazole, biological studies 288-88-0, 1H-1,2,4-Triazole
326-91-0, 2-Thenoyltrifluoroacetone 350-03-8, 3-Acetylpyridine
452-58-4, 2,3-Diaminopyridine 458-36-6, 4-Hydroxy-3-
methoxycinnamaldehyde 462-08-8, 3-Aminopyridine 480-66-0 486-25-9,
9-Fluorenone 487-89-8, 3-Indolealdehyde 488-87-9, 2,5-Dimethylresorcin
490-78-8 491-38-3, Chromone 491-67-8 492-73-9, 2,2'-Pyridil
492-94-4, 2,2'-Furil 496-73-1, 4-Methylresorcin 498-02-2 498-94-2,
Piperidine-4-carboxylic acid 498-95-3, Piperidine-3-carboxylic acid
500-22-1, 3-Pyridinealdehyde 504-15-4 504-17-6, Thiobarbituric acid
504-24-5, 4-Aminopyridine 504-29-0, 2-Aminopyridine 520-36-5
523-88-6, 5,5'-Dibromosalicil 525-82-6, Flavone 528-21-2 528-75-6,
2,4-Dinitrobenzaldehyde 533-31-3, 3,4-Methylenedioxyphenol 533-73-3,
Hydroxyhydroquinone 535-75-1, Piperidine-2-carboxylic acid 535-87-5,
3,5-Diaminobenzoic acid 537-65-5, 4,4'-Diaminodiphenylamine 548-83-4
552-89-6 553-86-6, 2-Coumaranone 555-16-8, 4-Nitrobenzaldehyde,
biological studies 556-03-6, Tyrosine 570-24-1, 6-Nitro-o-toluidine
574-19-6 577-56-0 577-85-5 578-66-5, 8-Aminoquinoline 579-07-7
579-72-6, 2-Dimethylaminobenzaldehyde 580-17-6, 3-Aminoquinoline
580-22-3, 2-Aminoquinoline 582-17-2, 2,7-Dihydroxynaphthalene 586-89-0
591-27-5, 3-Aminophenol 603-81-6, 2,3-Diaminobenzoic acid 606-31-5,
2,6-Dinitrobenzaldehyde 606-55-3 606-57-5, 2-Amino-1-nitronaphthalene
608-08-2, 3-Indoxylacetate 608-25-3, 2-Methylresorcin 608-97-9,
Benzenepentamine 610-74-2, 2,5-Diaminobenzoic acid 610-81-1,
4-Amino-3-nitrophenol 610-99-1 611-03-0, 2,4-Diaminobenzoic acid
611-09-6, 5-Nitroisatin 611-98-3, 4,4'-Diaminobenzophenone 611-99-4,
4,4'-Dihydroxybenzophenone 614-16-4, Benzoylacetone nitrile 614-82-4,
2,4-Dihydroxyphenylacetic acid 615-50-9, 2,5-Diaminotoluene sulfate
615-66-7 615-71-4, 1,2,4-Triaminobenzene 616-45-5, Pyrrolidone
616-47-7, 1-Methylimidazole 619-05-6, 3,4-Diaminobenzoic acid
626-64-2, 4-Hydroxypyridine 636-25-9, 2,5-Diaminophenol 698-63-5,
5-Nitrofurfural, biological studies 699-83-2 703-80-0, 3-Acetylindole
704-13-2, 3-Hydroxy-4-nitrobenzaldehyde 711-79-5 712-97-0 779-90-8,
1,3,5-Triacetylbenzene 830-74-0 832-58-6, 2,4,6-Trimethoxyacetophenone
872-85-5, 4-Pyridinealdehyde 873-74-5 876-87-9 934-22-5,
5-Aminobenzimidazole 950-81-2 1004-74-6, 2,4,5,6-Tetraaminopyrimidine
1004-75-7, 4-Hydroxy-2,5,6-triaminopyrimidine 1009-61-6,

1,4-Diacetylbenzene 1080-74-6 1121-60-4, 2-Pyridinealdehyde
1122-54-9, 4-Acetylpyridine 1122-62-9, 2-Acetylpyridine 1123-55-3,
7-Aminobenzothiazole 1123-93-9, 5-Aminobenzothiazole 1125-60-6,
5-Aminoisoquinoline 1136-86-3 1137-42-4, 4-Hydroxybenzophenone
1143-38-0, 1,8-Dihydroxyanthrone 1143-72-2, 2,3,4-Trihydroxybenzophenone
1192-58-1 1197-55-3, 4-Aminophenylacetic acid 1199-59-3,
4-Dimethylamino-2-methylbenzaldehyde 1204-86-0, 4-Morpholinobenzaldehyde
1217-89-6 1226-42-2, Anisil 1424-66-4, 2-Chloro-4-
dimethylaminobenzaldehyde 1450-75-5 1455-77-2, 3,5-Diamino-1,2,4-
triazole 1466-88-2, 2-Nitrocinnamaldehyde 1470-79-7,
2,4,4'-Trihydroxybenzophenone 1483-97-2, 3,6-Diacetyl-9-ethylcarbazole
1484-05-5, 3-Acetyl-9-methylcarbazole 1504-76-3, 3-Nitrocinnamaldehyde
1571-72-8, 3-Amino-4-hydroxybenzoic acid 1734-79-8, 4-
Nitrocinnamaldehyde 1820-80-0, 3-Aminopyrazole

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)

(oxidative hair dyes containing dicyanmethylen indane derivs., other dyes
and color intensifiers)

IT 1874-22-2, 3-(5-Nitro-2-furyl)acrolein 1971-81-9 2058-74-4 2124-31-4
2291-40-9 2374-03-0, 4-Amino-3-hydroxybenzoic acid 2380-94-1,
4-Hydroxyindole 2431-00-7, 4-Methylbenzil 2460-58-4,
4-Nitrosalicylaldehyde 2460-59-5, 3,5-Dinitrosalicylaldehyde 2478-38-8
2510-01-2 2654-52-6, 2,3-Dimethylbenzothiazolium p-toluenesulfonate
2688-48-4, 5-Hydroxy-2-coumaranone 2688-49-5 2785-06-0,
2,3-Dimethylbenzothiazolium iodide 2835-77-0, 2-Aminobenzophenone
2835-95-2, 2-Methyl-5-aminophenol 2835-98-5 2835-99-6 2871-01-4
3011-34-5, 4-Hydroxy-3-nitrobenzaldehyde 3131-52-0, 5,6-Dihydroxyindole
3158-63-2, 1,3-Dimethylthiobarbituric acid 3167-49-5, 6-Aminonicotinic
acid 3204-61-3, 1,2,4,5-Tetraaminobenzene 3215-37-0, 3-Acetylcarbazole
3240-72-0, 2,4-Dihydroxy-5,6-diaminopyrimidine 3342-78-7,
2-Aminophenylacetic acid 3433-54-3 3457-46-3, 4,4'-Dichlorobenzil
3457-48-5, 4,4'-Dimethylbenzil 3457-55-4, 1-Phenyl-1,2-butanedione
3468-11-9, 1,3-Diiminoisoindoline 3565-42-2D, Quinisatin, derivs.
4181-05-9, 4-Diphenylaminobenzaldehyde 4318-76-7, 2,5-Diaminopyridine
4331-29-7, 7-Aminobenzimidazole 4363-93-3, 4-Quinolinecarboxaldehyde
4444-26-2, Benzenehexamine 4521-33-9, 5-Nitrothiophene-2-aldehyde
4928-43-2, 2-Dimethylamino-5-aminopyridine 4940-39-0,
Chromone-2-carboxylic acid 5007-67-0, 3,3',4,4'-Tetraaminobenzophenone
5099-39-8 5131-58-8 5192-03-0, 5-Aminoindole 5192-04-1,
7-Aminoindole 5192-23-4, 4-Aminoindole 5217-47-0, 1,3-
Diethylthiobarbituric acid 5274-70-4, 2-Hydroxy-3-nitrobenzaldehyde
5307-02-8, 2,5-Diaminoanisole 5307-14-2, 1,4-Diamino-2-nitrobenzene
5318-27-4, 6-Aminoindole 5345-47-1, 2-Aminonicotinic acid 5416-80-8
5418-63-3, 1,2,3,3-Tetramethyl-3H-indolium iodide 5432-53-1 5434-20-8,
3-Aminophthalic acid 5470-96-2, 2-Quinolinecarboxaldehyde 5551-11-1,
4-Chloro-2-nitrobenzaldehyde 5718-83-2, Rhodanine-3-acetic acid
5850-35-1 5910-23-6 5930-28-9 5959-52-4, 3-Amino-2-naphthoic acid
6201-65-6, 2-Chlororesorcin 6203-18-5, 4-Dimethylaminocinnamaldehyde
6247-27-4 6259-50-3 6322-56-1, 4-Hydroxy-3-nitroacetophenone
6327-79-3 6358-09-4, 2-Amino-6-chloro-4-nitrophenol 6399-72-0,
6-Amino-7-hydroxynaphthalene-2-sulfonic acid 6532-16-7 6628-04-2,
4-Aminoquinoline 6633-46-1 6634-82-8, 4-Amino-4'-nitrostilbene-2,2'-
disulfonic acid disodium salt 6635-20-7, 5-Nitrovanillin 6781-42-6,
1,3-Diacetylbenzene 6967-12-0, 6-Aminoindazole 7218-02-2 7313-70-4,
Isatin-5-sulfonic acid 7332-96-9 7333-07-5 7336-20-1 7570-45-8
7575-35-1 7722-84-1, Hydrogen peroxide, biological studies 7749-47-5,
2-Amino-4-methoxy-6-methylpyrimidine 7768-28-7, 2-(2-Hydroxyethyl)phenol
7770-45-8 10040-98-9, 4-(1-Imidazolyl)benzaldehyde 10041-06-2
10111-08-7, 1H-Imidazole-2-carboxaldehyde 10173-66-7 10182-90-8D,
salts of 10338-57-5, 4-Piperidinobenzaldehyde 10342-85-5 10472-94-3

10472-95-4 13066-97-2 13103-80-5 13129-67-4 13129-68-5
13129-69-6 13441-40-2D, salts of 13441-53-7 13505-39-0,
3-Hydroxybutyrophenone 13669-42-6, 3-Quinolinecarboxaldehyde
13679-70-4, 5-Methylthiophene-2-aldehyde 13754-19-3,
4,5-Diaminopyrimidine 14268-66-7, 3,4-Methylenedioxyaniline
14338-36-4, 3-Aminophenylacetic acid 14501-66-7 15032-10-7
16082-33-0, 3,5-Diaminopyrazole 16183-46-3 16634-88-1,
5-Bromo-3-nitrosalicylaldehyde 16859-86-2, 1,4-Dimethylquinolinium
iodide 16867-03-1, 2-Amino-3-hydroxypyridine 17028-61-4,
2-Hydroxy-3-methoxy-5-nitrobenzaldehyde 17078-27-2, 4,4'-
Bis(dimethylamino)benzil 17422-74-1, Chromone-3-aldehyde 17630-76-1,
5-Chloroisatin 17672-22-9 17754-90-4, 4-Diethylamino-2-
hydroxybenzaldehyde 18073-18-2 18899-16-6D, salts of 19005-93-7,
1H-Indole-2-carboxaldehyde 19012-02-3, 1-Methyl-3-acetylindole
19012-03-4 19335-11-6, 5-Aminoindazole 20048-92-4 20103-09-7
20357-25-9, 4,5-Dimethoxy-2-nitrobenzaldehyde 21240-56-2 22711-20-2,
4-Dimethylaminobenzil 22711-21-3, 4-Methoxybenzil 22711-23-5,
4-Chlorobenzil 22715-34-0, 2-Hydroxy-4,5,6-triaminopyrimidine
22948-94-3 23244-87-3, 2,4,5-Triaminopyridine 23894-07-7 24905-87-1
25128-32-9 26216-16-0 27074-03-9, 3-Cyano-1,4-dimethyl-6-hydroxy-2-
pyridone 27394-81-6 27841-29-8 28020-38-4 28129-11-5 28141-13-1,
3-Cyano-1-ethyl-6-hydroxy-4-methyl-2-pyridone 28602-27-9,
Dimethylaminobenzaldehyde 29539-03-5, 5,6-Dihydroxyindoline 29705-39-3.
31541-32-9 31680-07-6, 4-Methyl-3-nitrobenzaldehyde 31835-64-0,
3-Amino-3'-nitrobiphenyl 33288-79-8, 4,4'-Dihydroxybenzil 33709-29-4
33985-71-6 35578-47-3, 4,4'-Dibromobenzil 36075-79-3D, salts of
36518-76-0 37705-82-1 38172-19-9 38469-73-7, 4-Hydroxybenzil
39755-03-8, 4-Hydroxybutyrophenone 39755-95-8, 5-Methoxyisatin
39910-98-0 40101-17-5, 3,3'-Dimethoxybenzil 41602-56-6,
4-Dimethylamino-2-hydroxybenzaldehyde 41626-14-6 41704-95-4
41927-50-8 41946-53-6 42454-06-8, 5-Hydroxy-2-
nitrobenzaldehyde 42758-54-3, 4-Nitro-1-naphthaldehyde 42952-26-1
45791-64-8D, salts of 46061-36-3D, salts of 46791-37-1D, salts of
46881-39-4D, salts of 46893-92-9D, salts of 50610-28-1 50899-59-7
51387-92-9 51980-54-2, 4-Pyrrolidinobenzaldehyde 52605-12-6,
3,3',4,4',5,5'-Hexamethoxybenzil 52943-88-1, 1-Phenyl-3-methyl-4,5-
diaminopyrazole 53003-19-3 53003-20-6 53055-05-3,
3-Methoxy-2-nitrobenzaldehyde 54381-16-7 54628-24-9D, salts of
55302-96-0 55619-93-7 55949-38-7D, Hydroxypyrimidine, derivs.
56159-70-7 56216-28-5, 3,5-Diamino-2,6-dimethoxypyridine dihydrochloride
56932-44-6 58028-76-5, 2-Morpholinobenzaldehyde 58480-17-4,
1,2-Dimethylnaphtho[1,2-d]thiazolium p-toluenesulfonate 58979-56-9
59184-59-7 61224-35-9, 1,2,3,3-Tetramethyl-3H-indolium
p-toluenesulfonate 61693-42-3, 3-Amino-2,4-dichlorophenol 62077-85-4D,
salts of 62496-02-0, 2-Methylamino-4,5,6-triaminopyrimidine 63149-33-7
63969-46-0, Bis-(5-amino-2-hydroxyphenyl)methane 64258-84-0 64993-07-3
66566-48-1 67608-58-6 67608-59-7 68391-32-2 68549-78-0
69537-53-7D, salts of 69564-74-5 69825-83-8, 6-Nitro-2,5-
diaminopyridine 70484-29-6 70643-19-5 71134-97-9 73264-13-8D,
salts of 74401-04-0 74401-05-1 74991-01-8D, salts of 74991-02-9
74991-04-1 77484-77-6 77523-60-5D, salts of 78521-11-6D, salts of
79352-72-0 81892-72-0, 1,3-Bis(2,4-diaminophenoxy)propane 82228-89-5
82576-75-8

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(oxidative hair dyes containing dicyanmethylen indane derivs.,
other dyes and color intensifiers)

IT 83073-86-3 83763-47-7, 2-Amino-4-(2-hydroxyethylamino)anisole
84540-47-6 84540-50-1 84562-48-1, 4-Dimethylamino-2-
methoxybenzaldehyde 84677-32-7 85561-52-0, 1-Phenyl-4,5-

diaminopyrazole 85679-78-3 87538-42-9, 2,4-Dihydroxybenzil
90134-10-4, 4-(Dibutylamino)benzaldehyde 90817-34-8 91921-13-0D, salts
of 93841-24-8 93923-57-0 95195-42-9, 4,4'-Pyridil 95576-89-9
96516-29-9, 2-Fluoro-3-nitrobenzaldehyde 97095-30-2 99755-95-0
104333-09-7 104903-49-3 106110-60-5 109845-54-7 110102-86-8
110952-46-0 110952-48-2 111423-75-7 114260-09-2 114402-54-9,
1,3-Bis(4-aminophenylamino)propane 115423-85-3 115423-86-4,
1,3-Diamino-2,4-dimethoxybenzene 115571-79-4 117907-43-4 121506-91-0
121506-92-1 121506-93-2 121506-94-3 121506-95-4 121506-96-5
121507-01-5 121507-05-9 121528-65-2 122438-74-8D, salts of
122455-85-0 123313-95-1 126335-41-9 126335-43-1 128729-30-6,
1,3-Bis[N-(4-aminophenyl)-2-hydroxyethylamino]-2-propanol 129697-50-3
130133-55-0 130582-56-8, 1,3-Bis(4-aminophenylamino)-2-propanol
133437-59-9 135043-64-0 137290-86-9 141614-04-2 141614-05-3
141922-20-5, 2,4-Diamino-5-fluorotoluene 144644-13-3 145092-00-8,
3-Amino-5-hydroxypyrazole 145571-38-6 146658-65-3 146677-89-6.
147025-37-4D, salts of 149330-25-6 149833-00-1D, salts of
155601-17-5, 1-(2-Hydroxyethyl)-4,5-diaminopyrazole 159661-40-2
159661-41-3 159661-42-4 159661-43-5 159661-45-7,
1,8-Bis-(2,5-diaminophenoxy)-3,6-dioxaoctane 160940-24-9 169381-72-0
187030-52-0 194099-39-3 211872-02-5 215377-39-2 215377-40-5
215377-41-6 215377-42-7 215377-43-8 215377-44-9 215377-45-0
215377-46-1 215377-47-2 215377-48-3 215377-49-4 215377-50-7
215377-51-8 220118-56-9, 1,2,3,3-Tetramethyl-3H-indolium
methanesulfonate 223397-50-0D, salts of 223397-66-8D, salts of
223397-83-9D, salts of 223397-92-0D, salts of 223398-02-5
223398-03-6 223398-08-1 223398-09-2 223398-35-4D, salts of
223398-44-5D, salts of 223398-71-8 223398-72-9 260980-91-4
260980-92-5 260980-93-6 260980-94-7 260981-00-8 278807-62-8D,
salts of 278807-63-9D, salts of 278807-64-0D, salts of 278807-65-1D,
salts of 278807-66-2D, salts of 278807-67-3D, salts of 278807-68-4D,
salts of 278807-69-5D, salts of 278807-70-8D, salts of 278807-71-9D,
salts of 278807-72-0D, salts of 278807-73-1D, salts of 278807-74-2D,
salts of 278807-75-3D, salts of 278807-76-4D, salts of 278807-77-5D,
salts of 278807-78-6D, salts of 278807-79-7D, salts of 278807-80-0D,
salts of 279214-38-9 279218-88-1D, salts of 279218-90-5D, salts of
279218-92-7D, salts of 279218-94-9D, salts of 279218-98-3D, salts of
279219-00-0D, salts of 279219-03-3D, salts of 279219-07-7D, salts of
279219-13-5D, salts of 279219-17-9D, salts of 279219-21-5D, salts of
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324757-59-7D, salts of 324757-60-0D, salts of 325958-39-2D, salts of
325958-40-5D, salts of 325958-41-6D, salts of 346593-13-3,
3-Amino-4-nitroacenaphthene 346684-81-9 375856-52-3 381211-44-5
503854-25-9D, salts of 503854-51-1D, salts of 503854-53-3D, salts of
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503854-83-9D, salts of 503854-84-0D, salts of 503854-85-1D, salts of
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503856-16-4 503856-17-5 503856-18-6 504432-91-1 504432-93-3
504432-94-4 504433-02-7 505065-52-1 506436-47-1 507224-77-3
507484-42-6 507484-43-7 507484-44-8 507484-45-9 507484-46-0
507484-47-1 507484-48-2 507484-49-3 507484-50-6 507484-52-8

507484-53-9 507484-54-0 507484-55-1 507484-56-2 507484-57-3
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 507484-68-6 507484-69-7 507484-70-0 507484-71-1 507484-72-2
 507484-73-3 507484-74-4 507484-75-5 507484-76-6 507484-77-7
 507484-78-8 507484-79-9

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)

(oxidative hair dyes containing dicyanmethylen indane derivs., other dyes and color intensifiers)

IT 507484-80-2 507484-81-3 507484-82-4 507484-83-5 507484-84-6
 507484-85-7 507484-86-8 507484-87-9 507484-90-4 507484-91-5
 507484-92-6 507484-97-1D, salts of 507484-98-2D, salts of
 507484-99-3D, salts of 507485-00-9 507485-01-0 507485-02-1
 507485-03-2 507485-04-3 507485-05-4 507485-06-5 507485-07-6

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)

(oxidative hair dyes containing dicyanmethylen indane derivs., other dyes and color intensifiers)

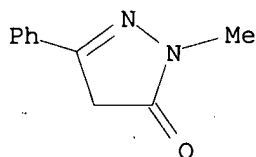
IT 41927-50-8

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)

(oxidative hair dyes containing dicyanmethylen indane derivs., other dyes and color intensifiers)

RN 41927-50-8 HCAPLUS

CN 3H-Pyrazol-3-one, 2,4-dihydro-2-methyl-5-phenyl- (9CI) . (CA INDEX NAME)



L11 ANSWER 3 OF 30 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2003:278305 HCAPLUS

DN 138:308932

TI Hair dyes containing aromatic or heteroaromatic aldehydes and ketones in combination with other dyes and color intensifiers

IN Moeller, Hinrich; Oberkobusch, Doris

PA Henkel K.-G.a.A., Germany

SO Ger. Offen., 20 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 10148847	A1	20030410	DE 2001-10148847	20011004
	WO 2003030845	A1	20030417	WO 2002-EP10730	20020925
	WO 2003030845	C1	20040115		
	W: AU, BR, CA, CN, HU, JP, NO, PL, RU, US, VN				
	RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR				
	EP 1434557	A1	20040707	EP 2002-777201	20020925
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR, BG, CZ, EE, SK				
PRAI	DE 2001-10148847	A	20011004		
	WO 2002-EP10730	W	20020925		

OS MARPAT 138:308932
AB The invention concerns hair dyes that contain aromatic or heteroarom. aldehydes and ketones and 4-aminopyrazoline-5-one derivs. Further components are selected from the group of primary and secondary aromatic amines, hydroxydes, nitrogen-containing heterocycles, amino acids etc. Thus in a dyeing experiment 5 mmol 4-formyl-1-methylpyridinium benzene sulfonate and 5 mmol 4-aminoantipyrine were mixed and pH 6 was set with sodium hydroxide; an intensive gold-yellow color was obtained.
IC ICM A61K007-13
CC 62-3 (Essential Oils and **Cosmetics**)
ST hair dye arom heteroarom aldehyde ketone aminoantipyrine
IT Surfactants
(anionic; hair dyes containing aromatic or heteroarom. aldehydes and ketones in combination with other dyes and color intensifiers)
IT Aldehydes, biological studies
Ketones, biological studies
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(aromatic; hair dyes containing aromatic or heteroarom. aldehydes and ketones in combination with other dyes and color intensifiers)
IT Hair preparations
(dyes; hair dyes containing aromatic or heteroarom. aldehydes and ketones in combination with other dyes and color intensifiers)
IT Oxidizing agents
(hair dyes containing aromatic or heteroarom. aldehydes and ketones in combination with other dyes and color intensifiers)
IT Aldehydes, biological studies
Amines, biological studies
Caseins, biological studies
Collagens, biological studies
Elastins
Keratins
Ketones, biological studies
Proteins
Quaternary ammonium compounds, biological studies
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(hair dyes containing aromatic or heteroarom. aldehydes and ketones in combination with other dyes and color intensifiers)
IT Ketones, biological studies
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(heteroarom.; hair dyes containing aromatic or heteroarom. aldehydes and ketones in combination with other dyes and color intensifiers)
IT Aldehydes, biological studies
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(heteroaryl; hair dyes containing aromatic or heteroarom. aldehydes and ketones in combination with other dyes and color intensifiers)
IT Surfactants
(nonionic; hair dyes containing aromatic or heteroarom. aldehydes and ketones in combination with other dyes and color intensifiers)
IT Proteins
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(soybean; hair dyes containing aromatic or heteroarom. aldehydes and ketones in combination with other dyes and color intensifiers)
IT Protein hydrolyzates
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(wheat gluten; hair dyes containing aromatic or heteroarom. aldehydes and ketones in combination with other dyes and color intensifiers)
IT Glutens

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)

(wheat, hydrolyzates; hair dyes containing aromatic or heteroarom. aldehydes and ketones in combination with other dyes and color intensifiers)

IT Surfactants

(zwitterionic; hair dyes containing aromatic or heteroarom. aldehydes and ketones in combination with other dyes and color intensifiers)

IT 56-87-1, L-Lysine, biological studies 59-48-3, Oxindol 59-92-7, biological studies 60-18-4, L-Tyrosine, biological studies 62-53-3, Benzenamine, biological studies 63-91-2, L-Phenylalanine, biological studies 65-49-6 66-72-8, Pyridoxal 67-52-7, Barbituric acid 70-18-8, Glutathione, biological studies 70-26-8, L-Ornithine 70-70-2 71-00-1, L-Histidine, biological studies 73-22-3, L-Tryptophan, biological studies 74-79-3, L-Arginine, biological studies 77-32-7 82-86-0, Acenaphthylenequinone 83-07-8 83-30-7 83-33-0 83-56-7, 1,5-Naphthalenediol 84-83-3 85-26-7, Salicil 87-02-5 87-66-1, Pyrogallol 88-21-1 88-74-4 89-57-6 89-84-9 89-86-1 90-02-8, Salicylaldehyde, biological studies 90-05-1 90-15-3, 1-Naphthalenol 90-20-0 90-44-8, Anthrone 91-29-2 91-56-5, 1H-Indole-2,3-dione 92-44-4, 2,3-Naphthalenediol 92-65-9 93-55-0, Propiophenone 95-01-2, 2,4-Dihydroxybenzaldehyde 95-54-5, 1,2-Benzenediamine, biological studies 95-55-6 95-70-5 95-88-5 96-91-3 96-93-5 97-51-8 98-01-1, 2-Furancarboxaldehyde, biological studies 98-37-3 98-86-2, Acetophenone, biological studies 99-05-8 99-07-0 99-31-0 99-50-3 99-56-9 99-61-6 99-92-3 99-93-4, 4-Hydroxyacetophenone 100-01-6, biological studies 100-10-7, 4-Dimethylaminobenzaldehyde 101-77-9 101-80-4 102-32-9 106-50-3, 1,4-Benzenediamine, biological studies 107-95-9, β -Alanine 108-45-2, 1,3-Benzenediamine, biological studies 108-46-3, 1,3-Benzenediol, biological studies 108-72-5, 1,3,5-Benzenetriamine 108-73-6, Phloroglucin 109-00-2, 3-Pyridinol 110-85-0, Piperazidine, biological studies 110-86-1, Pyridine, biological studies 110-89-4, Piperidine, biological studies 116-63-2 117-39-5, Quercetin 118-12-7 118-70-7, 4,5,6-Pyrimidinetriamine 118-92-3 118-93-4 119-34-6 119-59-5 119-61-9, Benzophenone, biological studies 119-70-0 119-72-2 120-21-8, 4-Diethylaminobenzaldehyde 120-46-7 120-80-9, Pyrocatechin, biological studies 121-33-5, Vanillin 121-47-1 121-57-3 121-71-1 122-57-6 123-30-8 123-31-9, Hydroquinone, biological studies 123-75-1, Pyrrolidine, biological studies 131-56-6, 2,4-DiHydroxyBenzophenone 134-81-6, Benzil 139-65-1 141-84-4 141-86-6, 2,6-Pyridinediamine 142-08-5, 2(1H)-Pyridinone 147-85-3, L-Proline, biological studies 149-87-1 149-91-7, biological studies 150-13-0 150-19-6 150-75-4 150-76-5 156-81-0, 2,4-Pyrimidinediamine 288-13-1, 1H-Pyrazole 288-32-4, 1H-Imidazole, biological studies 288-88-0, 1H-1,2,4-Triazole 326-91-0 350-03-8 452-58-4, 2,3-Pyridinediamine 458-36-6, Coniferylaldehyde 462-08-8, 3-Pyridinamine 480-66-0 486-25-9, 9-Fluorenone 487-89-8, 1H-Indole-3-carboxaldehyde 488-87-9 490-78-8 491-38-3, Chromone 491-67-8, 5,6,7-TriHydroxyFlavone 492-73-9, 2,2'-Pyridil 492-94-4, 2,2'-Furil 498-02-2 498-94-2, Piperidine 4-carboxylic acid 498-95-3, Piperidine 3-carboxylic acid 500-22-1, 3-Pyridinecarboxaldehyde 504-17-6, Thiobarbituric acid 504-24-5, 4-Pyridinamine 504-29-0, 2-Pyridinamine 517-22-6 520-36-5, 4',5,7-TriHydroxyFlavone 525-82-6, Flavone 528-21-2 533-31-3, 1,3-Benzodioxol-5-ol 533-73-3, Hydroxyhydroquinone 535-75-1, Piperidine 2-carboxylic acid 535-87-5 537-65-5 548-83-4, 3,5,7-TriHydroxyFlavone 552-89-6 553-86-6, Cumarone 555-16-8, biological studies 556-03-6, Tyrosine 570-24-1 574-19-6 577-56-0 577-85-5, 3-HydroxyFlavone 578-66-5, 8-Quinolinamine 579-72-6 580-17-6, 3-Quinolinamine 580-22-3, 2-Quinolinamine 582-17-2, 2,7-Naphthalenediol 586-89-0 591-27-5 603-81-6 606-23-5,

1H-Indene-1,3(2H)-dione 606-31-5 606-55-3 606-57-5 608-08-2,
3-Indoxyl acetate 610-74-2 610-81-1 611-03-0 611-09-6 611-98-3
611-99-4, 4,4'-DiHydroxyBenzophenone 614-82-4 615-66-7 615-71-4,
1,2,4-Benzenetriamine 616-45-5, 2-Pyrrolidinone 616-47-7 619-05-6
623-09-6 623-30-3 626-64-2, 4-Pyridinol 636-25-9 698-63-5,
biological studies 699-83-2 703-80-0 704-13-2 711-79-5 712-97-0
771-50-6, 1H-Indole-3-carboxylic acid 779-90-8 830-74-0 832-58-6,
2,4,6-Trimethoxyacetophenone 872-85-5, 4-Pyridinecarboxaldehyde
932-16-1 934-22-5, 1H-Benzimidazol-5-amine 943-88-4 950-81-2
1004-74-6, Pyrimidinetetramine 1009-61-6 1080-12-2 1121-60-4,
2-Pyridinecarboxaldehyde 1122-54-9 1122-62-9 1123-55-3,
7-Benzothiazolamine 1123-93-9, 5-Benzothiazolamine 1125-60-6,
5-Isoquinolinamine 1136-86-3 1137-42-4, 4'-HydroxyBenzophenone
1143-38-0, 1,8-DihydroxyAnthrone 1143-72-2, 2,3,4-TriHydroxyBenzophenone
1192-58-1 1197-55-3 1199-59-3 1204-86-0, 4-Morpholinobenzaldehyde
1226-42-2, Anisil 1424-66-4 1450-75-5 1455-77-2,
1H-1,2,4-Triazole-3,5-diamine 1466-88-2 1470-79-7,
2,4,4'-TriHydroxyBenzophenone 1483-97-2 1484-05-5 1504-76-3
1571-72-8 1643-19-2 1734-79-8 1820-80-0, 1H-Pyrazol-3-amine
1874-22-2 1953-54-4, 1H-Indol-5-ol 1971-81-9 2058-74-4 2124-31-4
2291-40-9 2374-03-0 2380-84-9, 1H-Indol-7-ol 2380-86-1,
1H-Indol-6-ol 2380-94-1, 1H-Indol-4-ol 2478-38-8 2510-01-2
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)

(hair dyes containing aromatic or heteroarom. aldehydes and ketones in
combination with other dyes and color intensifiers)

IT 2654-52-6 2785-06-0 2835-77-0, 2-AminoBenzophenone 2835-95-2
2835-99-6 2871-01-4 2887-61-8, 2-Hydroxybutyrophenone 3011-34-5
3131-52-0, 1H-Indole-5,6-diol 3158-63-2, 1,3-DimethylThiobarbituric acid
3160-35-8 3160-37-0 3167-49-5 3215-37-0 3342-78-7 3433-54-3
3565-42-2, Quinisatin 3769-62-8, Gallion 3855-78-5 4181-05-9
4318-76-7, 2,5-Pyridinediamine 4331-29-7, 1H-Benzimidazol-4-amine
4335-90-4 4363-93-3, 4-Quinolinecarboxaldehyde 4506-66-5 4928-43-2
4940-39-0 5007-67-0 5099-39-8 5131-58-8 5142-72-3 5142-73-4
5192-03-0, 1H-Indol-5-amine 5192-04-1, 1H-Indol-7-amine 5192-23-4,
1H-Indol-4-amine 5217-47-0, 1,3-DiethylThiobarbituric acid 5274-70-4
5307-14-2 5318-27-4, 1H-Indol-6-amine 5345-47-1 5416-80-8
5418-63-3 5432-53-1 5434-20-8 5551-11-1 5650-40-8,
2-Hydroxypropiophenone 5650-41-9, 3-Hydroxypropiophenone 5679-13-0
5682-83-7 5718-83-2 5850-35-1, Acid blue 29 5910-23-6 5930-28-9
5959-52-4 6051-53-2 6201-65-6 6203-18-5 6222-46-4 6247-27-4,
Mordant brown 4 6259-50-3 6322-56-1 6327-79-3 6358-09-4
6361-22-4 6399-72-0 6628-04-2 6628-86-0 6633-46-1 6634-82-8
6635-20-7 6781-42-6 6967-12-0, 1H-Indazol-6-amine 7313-70-4
7336-20-1 7411-49-6 7426-56-4 7427-04-5 7570-45-8 7575-35-1
7722-84-1, Hydrogen peroxide, biological studies 7749-47-5 7768-28-7
7770-45-8 10040-98-9 10041-06-2 10111-08-7, 1H-Imidazole-2-
carboxaldehyde 10173-66-7 10182-90-8D, salts of 10338-57-5,
4-Piperidinobenzaldehyde 10342-85-5 10472-94-3 10472-95-4
13441-40-2D, salts of 13505-39-0, 3-Hydroxybutyrophenone 13558-26-4
13558-27-5 13558-57-1 13669-42-6, 3-Quinolinecarboxaldehyde
13754-19-3, 4,5-Pyrimidinediamine 14189-80-1 14189-81-2 14268-66-7,
1,3-Benzodioxol-5-amine 14338-36-4 14501-66-7 16082-33-0,
1H-Pyrazole-3,5-diamine 16588-34-4 16634-88-1 16859-86-2
16867-03-1 17028-61-4 17422-74-1 17630-76-1 17792-58-4
18073-18-2 18899-16-6D, salts of 19005-93-7, 1H-Indole-2-
carboxaldehyde 19012-02-3 19012-03-4 19335-11-6, 1H-Indazol-5-amine
20103-09-7 20357-25-9 20427-81-0 21240-56-2 22411-59-2
22715-34-0 22948-94-3 23244-87-3, 2,4,5-Pyridinetriamine 23894-07-7
24119-24-2 24905-87-1, HC red 7 25128-32-9 27394-81-6 28020-38-4

28491-52-3 29539-03-5 29705-39-3 31680-07-6 31835-64-0
 32387-21-6 33709-29-4 33985-71-6 36075-79-3D, salts of 39755-03-8,
 4-Hydroxybutyrophenone 39755-95-8 39910-98-0 41602-56-6,
 4-Dimethylamino-2-hydroxybenzaldehyde 41927-50-8 41946-53-6
 42426-35-7 42454-06-8 42758-54-3 42952-29-4 45791-64-8D, salts of
 46061-36-3D, salts of 46791-37-1D, salts of 46881-39-4D, salts of
 46893-92-9D, salts of 50610-28-1 50899-59-7 51387-92-9 51980-54-2,
 4-Pyrrolidinobenzaldehyde 53055-05-3 54628-24-9D, salts of
 55047-63-7 55198-95-3 55302-96-0 55949-38-7D, Pyrimidinol, derivs.
 56932-44-6, HC yellow 5 58028-76-5 58480-17-4 60159-98-0
 61078-47-5 61078-48-6 61224-35-9 61693-42-3 62077-85-4D, salts of
 62378-72-7 62496-02-0 63053-27-0 63149-33-7 64993-07-3
 65443-86-9 66566-48-1 66635-40-3 67019-57-2 67805-13-4
 68391-32-2 69386-65-8 69537-53-7D, salts of 69825-83-8 70484-29-6
 70643-19-5 71134-97-9 73264-13-8D, salts of 74918-21-1
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 84540-47-6 84540-50-1 84562-48-1 85679-78-3 85926-99-4
 87814-15-1 90134-10-4 90293-76-8D, derivs. 91921-13-0D, salts of
 93841-24-8 93923-57-0 95195-42-9, 4,4'-Pyridil 95576-89-9, HC red 10
 96516-29-9 104333-09-7 110102-86-8 110952-48-2 114402-54-9
 114682-26-7 115423-86-4 117907-43-4 122438-74-8D, salts of
 128729-30-6 130133-55-0 130582-56-8 137290-86-9 144644-13-3
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 159661-42-4 187030-52-0

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)

(hair dyes containing aromatic or heteroarom. aldehydes and ketones
 in combination with other dyes and color intensifiers)

IT 202525-71-1 202525-73-3 202525-74-4 202525-75-5 202525-76-6
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503855-09-2D, salts of 503855-11-6D, salts of 504433-02-7
 507244-55-5 507244-59-9 507244-64-6 507244-68-0 507244-82-8
 507244-90-8 507245-01-4 507245-40-1 507245-44-5 507245-49-0
 507245-54-7 507246-12-0

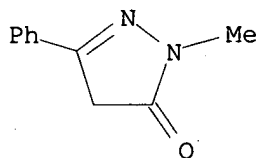
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (hair dyes containing aromatic or heteroarom. aldehydes and ketones in
 combination with other dyes and color intensifiers)

IT 41927-50-8

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (hair dyes containing aromatic or heteroarom. aldehydes and ketones
 in combination with other dyes and color intensifiers)

RN 41927-50-8 HCAPLUS

CN 3H-Pyrazol-3-one, 2,4-dihydro-2-methyl-5-phenyl- (9CI) (CA INDEX NAME)



L11 ANSWER 4 OF 30 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2002:793377 HCAPLUS

DN 137:299537

TI Hair coloring compositions comprising pyrazolone derivatives

IN Dunbar, James Charles; Pratt, Dominic; James, Delyth Anghharad

PA The Procter & Gamble Company, USA

SO PCT Int. Appl., 23 pp.

CODEN: PIXXD2

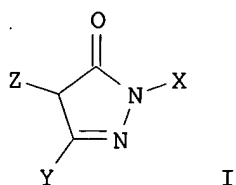
DT Patent

LA English

FAN.CNT 1

applicants

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002080871	A1	20021017	WO 2002-US10631	20020404
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP	1372584	A1	20040102	EP 2002-725524	20020404
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	JP 2004536793	T2	20041209	JP 2002-578910	20020404
	US 2004107516	A1	20040610	US 2003-679619	20031006
PRAI	GB 2001-8617	A	20010405		
	WO 2002-US10631	W	20020404		
OS	MARPAT 137:299537				
GI					



AB The invention provides a hair coloring composition comprising one or more developers selected from amino aromatic systems capable of being oxidized and thereafter undergoing at least two electrophilic attack reactions, and one or more couplers selected from I, in which X is a non-leaving substituent, and Z is an active leaving group, and Y is an active leaving group or a non-leaving substituent, such that in the presence of an oxidizing agent the or each developer reacts with the or each coupler substantially only at the position having the active leaving group Z and, if Y is an active leaving group, Y, provided that if X is Ph then Y is not Et or Me. Results showed the UV fade benefits given by p-phenylenediamine in comparison with dichloro-p-aminophenol together with a preferred pyrazolone coupler such as 1,3-dimethylpyrazolin-5-one.

IC ICM A61K007-13

CC 62-3 (Essential Oils and **Cosmetics**)

ST hair dye pyrazolone coupler

IT Hair preparations

(dyes; hair coloring compns. comprising pyrazolone derivs.)

IT Oxidizing agents

Substitution reaction, electrophilic

(hair coloring compns. comprising pyrazolone derivs.)

IT 106-50-3, p-Phenylenediamine, biological studies 2749-59-9

4845-49-2, 3H-Pyrazol-3-one, 2,4-dihydro-2,5-diphenyl-

41927-50-8, 3H-Pyrazol-3-one, 2,4-dihydro-2-methyl-5-phenyl-

43074-54-0 185451-37-0

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)

(hair coloring compns. comprising pyrazolone derivs.)

IT **4845-49-2**, 3H-Pyrazol-3-one, 2,4-dihydro-2,5-diphenyl-

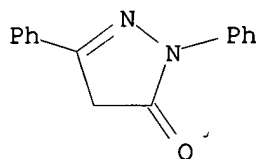
41927-50-8, 3H-Pyrazol-3-one, 2,4-dihydro-2-methyl-5-phenyl-

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)

(hair coloring compns. comprising pyrazolone derivs.)

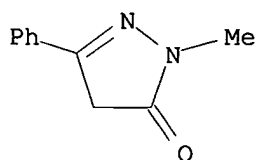
RN 4845-49-2 HCAPLUS

CN 3H-Pyrazol-3-one, 2,4-dihydro-2,5-diphenyl- (9CI) (CA INDEX NAME)



RN 41927-50-8 HCAPLUS

CN 3H-Pyrazol-3-one, 2,4-dihydro-2-methyl-5-phenyl- (9CI) (CA INDEX NAME)



RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 5 OF 30 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2002:733871 HCAPLUS

DN 137:252675

TI Two-component direct hair dyes

IN Umbricht, Gisela; Braun, Hans-Juergen; Oberson, Sylviane; Mueller, Catherine

PA Wella AG, Germany

SO Ger. Offen., 12 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 10114426	A1	20020926	DE 2001-10114426	20010324
PRAI	DE 2001-10114426		20010324		
OS	MARPAT 137:252675				

AB The invention concerns direct hair dyes that are composed of two dyes; component A1 contains benzodiazole, benzothiazole, benzoselenadiazole derivs.; component A2 is selected from the group of aliphatic esters, indolium, quinolinium, pyrazole, pyrazolinone, furan, etc. derivs. Thus component A1 contained (g): 7-chloro-4-nitro-2,1,3-benzoxadiazole 0.25; ethanol 5.00; Plantaren 2000 4.00; EDTA disodium hydrate 0.20; water to 100. Component A2 was 0.22 g 1-phenyl-3-methyl-5-pyrazolone. The components were mixed and sodium carbonate was added; the pH was set to desired value with sodium hydroxide and the mixt. was applied to hair.

IC ICM A61K007-13

CC 62-3 (Essential Oils and Cosmetics)

ST direct hair dye two component sodium carbonate

IT pH

(two-component direct hair dyes)

IT 59-48-3, Oxindole 67-52-7, Barbituric acid 89-25-8, 1-Phenyl-3-methyl-5-pyrazolone 105-34-0, Acetic acid, cyano-, methyl ester 105-53-3, Malonic acid diethyl ester 105-56-6, Acetic acid, cyano-, ethyl ester 107-91-5, 2-Cyanoacetamide 108-26-9 108-59-8, Malonic acid dimethyl ester 109-77-3, Malonic acid dinitrile 118-12-7, 1,3,3-Trimethyl-2-methyleneindoline 141-84-4, Rhodanine 372-09-8 497-19-8, Sodium carbonate, biological studies 504-02-9, Cyclohexane-1,3-dione 504-17-6, Thiobarbituric acid 541-50-4D, Acetoacetic acid, esters 553-86-6, Cumaranone 606-23-5, 1,3-Indandione 606-55-3 608-08-2, 3-Indoxylacetate 876-87-9 939-83-3 1753-20-4 2160-10-3 2207-29-6 2274-63-7 2274-89-7 2654-52-6 2749-59-9 2785-06-0 3158-63-2, 1,3-Dimethylthiobarbituric acid 3524-07-0 5418-63-3, 1,2,3,3-Tetramethyl-3H-indoliumiodide 5714-17-0 5718-83-2, Rhodanine-3-acetic acid 6583-06-8 10199-89-0, 7-Chloro-4-nitro-2,1,3-benzoxadiazole 15639-38-0 15639-43-7 15944-78-2 16322-19-3, 4-Nitro-2,1,3-benzoxadiazole 16859-86-2, 1,4-Dimethylquinoliniumiodide

18333-71-6 18333-73-8, 2,1,3-Benzoxadiazole, 4-methoxy-7-nitro-
 18378-23-9 18392-74-0 18392-77-3 18453-42-4 19951-28-1
 19951-33-8 19951-34-9 20718-28-9 20718-41-6 20718-46-1
 20718-47-2 20718-48-3 26460-78-6 26738-24-9 29270-56-2,
 2,1,3-Benzoxadiazole, 4-fluoro-7-nitro- 30536-22-2 32051-92-6
 35128-56-4, 2,1,3-Benzoxadiazole, 4-bromo-7-nitro- **41927-50-8**
 52120-98-6 59997-51-2, Pivaloylacetonitrile 61224-35-9,
 1,2,3,3-Tetramethyl-3H-indolium-p-toluene sulfonate 68579-76-0
 70264-71-0 72023-79-1 81432-10-2, 2,1,3-Benzoxadiazole,
 4-ethoxy-7-nitro- 89365-28-6 89365-31-1 89365-32-2 89793-80-6
 89793-88-4 90841-38-6 91267-92-4 91330-69-7 91760-88-2
 100181-80-4 125292-42-4 131202-67-0 131202-71-6 227199-11-3
 257932-06-2 257932-07-3 404839-62-9 404839-63-0 404839-64-1
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 460987-49-9 460987-50-2 460987-52-4

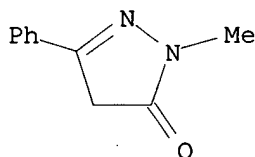
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (two-component direct **hair** dyes)

IT **41927-50-8**

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (two-component direct **hair** dyes)

RN 41927-50-8 HCAPLUS

CN 3H-Pyrazol-3-one, 2,4-dihydro-2-methyl-5-phenyl- (9CI) (CA INDEX NAME)



L11 ANSWER 6 OF 30 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2002:314390 HCAPLUS

DN 136:345464

TI Hair dye containing nitroxanthene derivatives

IN Moeller, Hinrich; Meinigke, Bernd

PA Henkel Kommanditgesellschaft Auf Aktien, Germany

SO Eur. Pat. Appl., 15 pp.

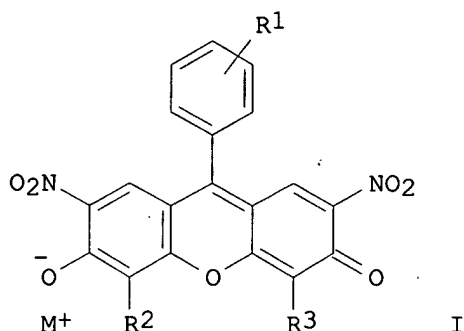
CODEN: EPXXDW

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1199065	A2	20020424	EP 2001-124105	20011010
	EP 1199065	A3	20040102		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	DE 10051776	A1	20020425	DE 2000-10051776	20001019
PRAI	DE 2000-10051776	A	20001019		
OS	MARPAT 136:345464				
GI					



AB The invention concerns hair dyes that contain nitroxanthene derivs. of the general formula (I); where R1 = H, carboxy-, carboxylato-, sulfo-, sulfonato-, hydroxy group; R2, R3 = H, halogen, hydroxyl; M = H, alkali, alkali earth atom. The nitroxanthene derivative is preferably C.I. Acid Red 91. The compns. further contain other dyes, surfactants and amino acids. Thus a pinkish red color was achieved by using 5 mmol Acid red 91 and 5 mmol 2,4,5,6-tetraamidopyrimidine x H2SO4 in a pH 6 aqueous medium that further contained 5 mmol sodium acetate, one drop of 20% fatty alkyl ether sulfonate.

IC ICM A61K007-13

CC 62-3 (Essential Oils and **Cosmetics**)

ST hair dye nitroxanthen deriv Acid red

IT Surfactants

(anionic; hair dye containing nitroxanthen derivs.)

IT Hair preparations

(dyes; hair dye containing nitroxanthen derivs.)

IT Surfactants

(hair dye containing nitroxanthen derivs.)

IT Amino acids, biological studies

Caseins, biological studies

Collagens, biological studies

Elastins

Keratins

Protein hydrolyzates

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)

(hair dye containing nitroxanthen derivs.)

IT Surfactants

(nonionic; hair dye containing nitroxanthen derivs.)

IT Peptides, biological studies

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)

(oligopeptides; hair dye containing nitroxanthen derivs.)

IT Surfactants

(zwitterionic; hair dye containing nitroxanthen derivs.)

IT 346684-81-9

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)

(Palatine Chrome Green; hair dye containing nitroxanthen derivs.)

IT 176742-32-8

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)

(hair dye containing nitroxanthen derivs.)

IT 56-34-8, Tetraethylammonium-chloride 56-87-1, L-Lysine, biological studies 56-93-9, Benzyltrimethylammonium-chloride 59-48-3, Oxindole 59-92-7, DOPA, biological studies 60-18-4, L-Tyrosine, biological studies 62-53-3, Aniline, biological studies 63-91-2, L-Phenylalanine,

biological studies 65-49-6, 4-Aminosalicyclic acid 67-52-7, Barbituric acid 70-26-8, L-Ornithine 71-00-1, Histidine, biological studies 73-22-3, L-Tryptophane, biological studies 74-79-3, L-Arginine, biological studies 77-32-7 83-07-8, 4-Aminoantipyrine 83-33-0, Indan-1-one 83-56-7, 1,5-Dihydroxynaphthalene 87-02-5, 7-Amino-4-hydroxynaphthalene-2-sulfonic acid 87-66-1, Pyrogallol 88-21-1, 2-Aminobenzene sulfonic acid 88-74-4, 2-Nitroaniline 89-57-6, 5-Aminosalicyclic acid 89-86-1, 2,4-Dihydroxybenzoic acid 90-05-1, 2-Methoxyphenol 90-15-3, 1-Naphthol 90-20-0, 4-Amino-5-hydroxynaphthalene-2,7-disulfonic acid 91-29-2, 4'-Amino-4-nitrodiphenylamine-2-sulfonic acid 91-68-9, Phenol, 3-(diethylamino)- 92-44-4, 2,3-Dihydroxynaphthalene 92-65-9, N-(2-Hydroxyethyl)-N-ethyl-p-phenylenediamine 95-54-5, o-Phenylenediamine, biological studies 95-55-6, 2-Aminophenol 95-70-5, 2,5-Diaminotoluene 96-91-3, 1-Hydroxy-2-amino-4,6-dinitrobenzene 96-93-5, 3-Amino-4-hydroxy-5-nitrobenzene sulfonic acid 98-37-3, 3-Amino-4-hydroxybenzene sulfonic acid 98-79-3, Pyrrolidone-5-carboxylic acid 99-05-8, 3-Aminobenzoic acid 99-07-0, 3-N,N-Dimethylaminophenol 99-31-0, 5-Aminoisophthalic acid 99-50-3, 3,4-Dihydroxybenzoic acid 99-56-9, 1,2-Diamino-4-nitrobenzene 100-01-6, 4-Nitroaniline, biological studies 101-77-9, 4,4'-Diaminodiphenylmethane 101-80-4, 4,4'-Diamino-diphenylether 106-50-3, p-Phenylenediamine, biological studies 107-95-9, β -Alanine 108-45-2, m-Phenylenediamine, biological studies 108-46-3, Resorcin, biological studies 108-72-5, 1,3,5-Triaminobenzene 108-73-6, Phloroglucin 108-99-6, 3-Methylpyridine 109-00-2, 3-Hydroxypyridine 109-06-8, 2-Methylpyridine 110-86-1, Pyridine, biological studies 110-89-4, Piperidine, biological studies 118-12-7, Fischer Base 118-70-7, 4,5,6-Triaminopyrimidine 118-92-3, 2-Aminobenzoic acid 119-34-6, 4-Amino-2-nitrophenol 119-59-5, 4,4'-Diaminodiphenyl-sulfoxide 119-70-0, 4,4'-Diaminodiphenylamine-2-sulfonic acid 120-80-9, Pyrocatechol, biological studies 121-47-1, 3-Aminobenzene sulfonic acid 121-57-3, 4-Aminobenzene sulfonic acid 123-30-8, 4-Aminophenol 123-31-9, Hydroquinone, biological studies 123-75-1, Pyrrolidine, biological studies 139-65-1, 4,4'-Diaminodiphenyl sulfide 141-84-4, Rhodanine 141-86-6, 2,6-Diaminopyridine 142-08-5, 2-Hydroxypyridine 147-85-3, L-Proline, biological studies 150-13-0, 4-Aminobenzoic acid 150-19-6, 3-Methoxyphenol 150-75-4, 4-Methylaminophenol 150-76-5, 4-Methoxyphenol 156-81-0, 2,4-Diaminopyrimidine 288-13-1, Pyrazole 288-32-4, Imidazole, biological studies 288-88-0, 1H-1,2,4-Triazole 452-58-4, 2,3-Diaminopyridine 488-87-9, 2,5-Dimethylresorcin 496-73-1, 4-Methylresorcin 498-94-2, Piperidine-4-carboxylic acid 504-15-4 504-17-6, Thiobarbituric acid 504-24-5, 4-Aminopyridine 517-22-6, 2,4-Dimethyl-3-ethylpyrrole 533-31-3, 3,4-Methylenedioxyphenol 533-73-3, Hydroxyhydroquinone 535-75-1, Piperidine-2-carboxylic acid 535-87-5, 3,5-Diaminobenzoic acid 537-65-5, 4,4'-Diaminodiphenyl-amine 548-24-3, C.I. Acid Red 91 553-86-6, Cumaranone 570-24-1, 1-Amino-2-methyl-6-nitrobenzene 578-66-5, 8-Aminoquinoline 580-17-6, 3-Aminoquinoline 580-22-3, 2-Aminoquinoline 582-17-2, 2,7-Dihydroxynaphthalene 591-27-5, 3-Aminophenol 603-81-6, 2,3-Diaminobenzoic acid 606-23-5, Indan-1,3-dione 606-55-3 606-57-5, 2-Amino-1-nitronaphthalene 608-08-2, 3-Indoxylacetate 608-25-3, 2-Methylresorcin 610-74-2, 2,5-Diaminobenzoic acid 610-81-1, 4-Amino-3-nitrophenol 611-03-0, 2,4-Diaminobenzoic acid 611-98-3, 4,4'-Diaminobenzophenone 615-66-7, 2-Chloro-p-phenylenediamine 615-71-4, 1,2,4-Triaminobenzene 616-45-5, Pyrrolidone 616-47-7, 1-Methylimidazole 619-05-6, 3,4-Diaminobenzoic acid 623-09-6, 4-Methylamino-aniline 626-64-2, 4-Hydroxypyridine 636-25-9, 2,5-Diamino-phenol 876-87-9 1004-74-6, 2,4,5,6-Tetraaminopyrimidine

1004-75-7, 4-Hydroxy-2,5,6-triaminopyrimidine 1112-67-0, Tetrabutyl ammonium-chloride 1123-55-3, 7-Aminobenzothiazole 1125-60-6, 5-Aminoisoquinoline 1197-55-3, 4-Amino-phenylacetic acid 1571-72-8, 3-Amino-4-hydroxybenzoic acid 1643-19-2, Tetrabutylammoniumbromide 1820-80-0, 3-Aminopyrazole 2374-03-0, 4-Amino-3-hydroxybenzoic acid 2380-84-9, 7-Hydroxyindole 2510-01-2 2654-52-6, 2,3-Dimethylbenzothiazolium-p-toluene sulfonate 2785-06-0, 2,3-Dimethylbenzothiazoliumiodide 2835-95-2, 2-Methyl-5-aminophenol 2835-99-6, 3-Methyl-4-aminophenol 2871-01-4, 2-Nitro-4-amino-1-(2-hydroxyethylamino)benzene 3131-52-0, 5,6-Dihydroxyindole 3158-63-2, 1,3-Dimethylthiobarbituric acid 3167-49-5, 6-Aminonicotinic acid 3769-62-8, Gallion 3855-78-5, 2,3,4-Trimethylpyrrole 4318-76-7, 2,5-Diaminopyridine 4331-29-7, 7-Aminobenzimidazole 4506-66-5, 1,2,4,5-Tetraaminobenzene-tetrahydrochloride 4928-43-2, 2-Dimethylamino-5-aminopyridine 4987-97-7, 3,3',4,4'-Tetraaminodiphenyl ether tetrahydrochloride 5007-67-0, 3,3',4,4'-Tetraaminobenzophenone 5099-39-8, 2-[2-(Diethylamino)ethylamino]-5-nitroaniline 5131-58-8 5192-03-0, 5-Aminoindole 5192-04-1, 7-Aminoindole 5192-23-4, 4-Aminoindole 5217-47-0, 1,3-Diethylthiobarbituric acid 5307-14-2, 1,4-Diamino-2-nitrobenzene 5318-27-4, 6-Aminoindole 5345-47-1, 2-Aminonicotinic acid 5392-28-9 5418-63-3, 1,2,3,3-Tetramethyl-3H-indoliumiodide 5434-20-8, 3-Aminophthalic acid 5718-83-2, Rhodanine-3-acetic acid 5810-42-4, Tetrapropylammonium-chloride 5850-35-1, Acid blue 29 5930-28-9, 2,6-Dichloro-4-aminophenol 5959-52-4, 3-Amino-2-naphthoic acid 6247-27-4, Mordant brown 4 6259-50-3, 6-Dimethylamino-4-hydroxy-2-naphthalene sulfonic acid 6358-09-4, 2-Amino-6-chloro-4-nitrophenol 6399-72-0, 6-Amino-7-hydroxynaphthalene-2-sulfonic acid 6628-04-2, 4-Aminoquinaldine 6634-82-8, 4-Amino-4'-nitrostilbene-2,2'-disulfonic acid, disodium salt 6967-12-0, 6-Aminoindazole 7336-20-1 7575-35-1, N,N-Bis(2-hydroxyethyl)-p-phenylenediamine 7749-47-5, 2-Amino-4-methoxy-6-methylpyrimidine 7768-28-7, 2-(2-Hydroxyethyl)phenol 10173-66-7, 1-Amino-4-nitro-2-(2-nitrobenzylideneamino)benzene 13754-19-3, 4,5-Diaminopyrimidine 14268-66-7, 3,4-Methylenedioxyaniline 16082-33-0, 3,5-Diaminopyrazole 16859-86-2, 1,4-Dimethylquinolinium-iodide 16867-03-1, 3-Pyridinol, 2-amino- 19335-11-6, 5-Aminoindazole 20103-09-7, 2,5-Dichloro-p-phenylenediamine 22715-34-0, 2-Hydroxy-4,5,6-triaminopyrimidine 23244-87-3, 2,4,5-Triaminopyridine 23894-07-7 24119-24-2, N, N-Bis[2-(4-aminophenoxy)ethyl]methylamine-trihydrochloride 24905-87-1, HC Red 7 28020-38-4, 2,3-Diamino-6-methoxypyridine 28491-52-3 29539-03-5, 5,6-Dihydroxyindoline 29705-39-3 31835-64-0, 3-Amino-3'-nitrobiphenyl 38172-19-9 **41927-50-8** 42952-29-4, 1-Ethyl-2-methylnaphtho[1,2-d]thiazolium-p-toluene sulfonate 50610-28-1 52943-88-1, 1-Phenyl-3-methyl-4,5-diaminopyrazole 55302-96-0, 2-Methyl-5-(2-hydroxyethylamino)phenol 56932-44-6, HC Yellow 5 58480-17-4, 1,2-Dimethylnaphtho[1,2-d]thiazolium-p-toluene sulfonate 61224-35-9, 1,2,3,3-Tetramethyl-3H-indolium-p-toluene sulfonate 61693-42-3, 3-Amino-2,4-dichloro phenol 62496-02-0, 2-Methylamino-4,5,6-triaminopyrimidine 64993-07-3, 5-Amino-6-nitrobenzo-1,3-dioxole 66635-40-3, 4,4'-Diaminostilbene-dihydrochloride 69825-83-8, 6-Nitro-2,5-diaminopyridine 70643-19-5, 2-(2',4'-Diaminophenoxy)ethanol 74918-21-1, 1,3-Bis(2,4-diaminophenoxy)propane-tetrahydrochloride 77484-77-6, 3-Amino-6-methylamino-2-nitropyridine 79352-72-0, 4-Amino-2-aminomethylphenol 81859-24-7, Polyquaternium 10 82576-75-8, HC Violet 1 83763-47-7, 2-Amino-4-(2'-hydroxyethylamino)anisole 84540-47-6, 2,6-Dihydroxy-3,4-dimethylpyridine 84540-50-1, 6-Methyl-3-amino-2-chlorophenol 85561-52-0, 1-Phenyl-4,5-diaminopyrazole 85679-78-3, 3,5-Diamino-2,6-dimethoxypyridine 85926-99-4, 4-Hydroxyindoline 90817-34-8,

3-Amino-2-methylamino-6-methoxy-pyridine 93841-24-8,
2-(2,5-Diaminophenyl)ethanol 93923-57-0 95576-89-9, HC Red 10
104333-09-7, 2-Hydroxymethyl-4-aminophenol 110102-86-8,
2-Methyl-5-amino-4-chloro-phenol 114402-54-9, 1,3-Bis(4-
aminophenylamino)propane 115423-86-4, 1,3-Diamino-2,4-dimethoxybenzene
117907-43-4, 4-Amino-2-nitrodiphenylamine-2'-carboxylic acid
126335-41-9, 2,5-Diamino-phenetole 128729-30-6, 1,3-Bis[N-(4-
aminophenyl)-2-hydroxyethylamino]-2-propanol 130582-56-8,
1,3-Bis(4-aminophenylamino)-2-propanol 137290-86-9, 5-(2-
Hydroxyethylamino)-4-methoxy-2-methylphenol 144644-13-3,
1,8-Bis(2,5-diaminophenoxy)-3,6-dioxaoctane-tetrahydrochloride
155601-17-5, 1H-Pyrazole-1-ethanol, 4,5-diamino- 159661-42-4,
2,5-Dihydroxy-4-morpholinoaniline

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)

(hair dye containing nitroxanthen derivs.)

IT 202525-71-1, 2,5-Dihydroxy-4-morpholinoaniline-dihydrobromide
202525-73-3, 2,4,5-Triaminophenol-trihydrochloride 202525-74-4,
Pentaaminobenzene-pentahydrochloride 202525-75-5, Hexaaminobenzene-
hexahydrochloride 202525-76-6, 2,4,6-Triaminoresorcin-trihydrochloride
202525-77-7 202525-78-8, 4,6-Diaminopyrogallol dihydrochloride
202525-79-9 211872-02-5 215377-52-9, 3,4-Methylenediamino aniline
220118-56-9, 1,2,3,3-Tetramethyl-3H-indolium-methanesulfonate
223383-77-5, 4-Amino-3-hydroxynaphthalene-sulfonic acid 260981-02-0,
N-(2-Methoxyethyl)-p-phenylenediamine 260981-03-1, 2,3-Dichloro-p-
phenylenediamine 262853-93-0, Piperidine-3-carboxylic acid
346593-13-3, 3-Amino-4-nitroacenaphthene 414861-14-6

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)

(hair dye containing nitroxanthen derivs.)

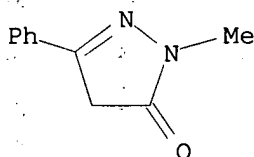
IT 41927-50-8

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)

(hair dye containing nitroxanthen derivs.)

RN 41927-50-8 HCAPLUS

CN 3H-Pyrazol-3-one, 2,4-dihydro-2-methyl-5-phenyl- (9CI) (CA INDEX NAME)



L11 ANSWER 7 OF 30 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2002:271799 HCAPLUS

DN 136:299454

TI Oxidative hair dyes containing acridine aldehydes and acridine ketones

IN Moeller, Hinrich; Oberkobusch, Doris; Hoeffkes, Horst

PA Henkel K.-G.A.a., Germany

SO Ger. Offen., 14 pp.

CODEN: GWXXBX

DT Patent

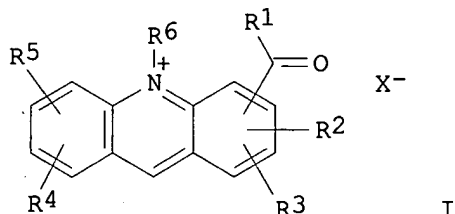
LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 10047480	A1	20020411	DE 2000-10047480	20000926
PRAI	DE 2000-10047480		20000926		

KATHLEEN FULLER EIC 1700 REMSEN 4B28 571/272-2505

OS MARPAT 136:299454
GI



- AB The invention concerns the synthesis of acridine aldehyde and acridine ketone derivs. and their application in oxidative hair dyes. Compds. of the general formula (I) are defined, where R1 = hydrogen atom, C1-4-Alkyl or group of aryls; R2, R3, R4 and a R5, same or different = a hydrogen atom, halogen atom, a C1-C4-Alkyl, C1-C4-Hydroxyalkyl, C1-C4-Alkoxy, C1-C4-Hydroxyalkoxy, hydroxy group, nitro group, sulfo group, amino group, which can be substituted by C1-C4-Alkyl, or a C1-C4-Acyl, whereby two of the groups can form a condensed aromatic ring, whereby the groups of COR1, R2, R3, R4 and R5 to any ring of the cyclic system; X- an anion, in particular halide, sulfonate, like benzene sulfonate, p-Toluene sulfonate, methanesulfonate or trifluoro methanesulfonate, Me sulfate, Et sulfate, perchlorate, sulfate, hydrogensulfate, tetrafluoroborate or tetrachlorozincate, alkanoate, whereby X- is absent if R6 is neg. charged; R6 = hydrogen atom, C1-4-Alkyl, C1-C4-Hydroxyalkyl, C1-C6 carboxyalkyl, C1-C6 sulfoalkyl, C1-4-aralkyl, heteroalkyl, neg. charged oxygen. Thus 9-formyl-10-methylacridinium-p-toluene sulfonate was synthesized from acridine-9-carboxaldehyde and p-toluene sulfonic acid Me ester. The product was used in combination with 3-methyl-p-aminophenol to yield a light brown hair color.
- IC ICM A61K007-13
ICS C07D219-02; C09B015-00
- CC 62-3 (Essential Oils and **Cosmetics**)
Section cross-reference(s): 27
- ST oxidative hair dye acridine aldehyde ketone
- IT Nitriles, biological studies
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(aromatic; oxidative hair dyes containing acridine aldehydes and acridine ketones)
- IT Hair preparations
(dyes, oxidative; oxidative hair dyes containing acridine aldehydes and acridine ketones)
- IT Amines, biological studies
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(heterocyclic, N-containing; oxidative hair dyes containing acridine aldehydes and acridine ketones)
- IT Shampoos
(oxidative hair dyes containing acridine aldehydes and acridine ketones)
- IT Caseins, biological studies
Collagens, biological studies
Elastins
Keratins

Protein hydrolyzates

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)

(oxidative hair dyes containing acridine aldehydes and acridine ketones)

IT Proteins

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)

(soy; oxidative hair dyes containing acridine aldehydes and acridine ketones)

- IT 56-87-1, L-Lysine, biological studies 59-48-3, Oxindole 59-92-7, DOPA, biological studies 60-18-4, L-Tyrosine, biological studies 62-53-3, Aniline, biological studies 63-91-2, L-Phenylalanine, biological studies 65-49-6, 4-Aminosalicylic acid 67-52-7, Barbituric acid 70-18-8, L-Glutathione, biological studies 70-26-8, Ornithine 71-00-1, L-Histidine, biological studies 73-22-3, L-Tryptophane, biological studies 74-79-3, L-Arginine, biological studies 77-32-7 83-30-7, 2,4,6-Trihydroxybenzoic acid 83-33-0, Indan-1-one 83-56-7, 1,5-Dihydroxynaphthalene 84-65-1, Anthraquinone 87-02-5, 7-Amino-4-hydroxynaphthalene-2-sulfonic acid 87-66-1, Pyrogallol 88-21-1, 2-Aminobenzene sulfonic acid 88-74-4, 2-Nitroaniline 89-57-6, 5-Aminosalicylic acid 89-86-1, 2,4-Dihydroxybenzoic acid 90-05-1, 2-Methoxyphenol 90-15-3, 1-Naphthol 90-20-0, 4-Amino-5-hydroxynaphthalene-2,7-disulfonic acid 91-29-2, 4'-Amino-4-nitrodiphenylamine-2-sulfonic acid 92-44-4, 2,3-Dihydroxynaphthalene 92-65-9, N-(2-Hydroxyethyl)-N-ethyl-p-phenylenediamine 95-54-5, o-Phenylenediamine, biological studies 95-55-6, 2-Aminophenol 95-70-5, 2,5-Diaminotoluene 95-88-5, 4-Chlororesorcin 96-91-3, Picramic acid 96-93-5, 3-Amino-4-hydroxy-5-nitrobenzene sulfonic acid 98-37-3, 3-Amino-4-hydroxybenzene sulfonic acid 98-79-3, Pyrrolidone-5-carboxylic acid 99-05-8, 3-Aminobenzoic acid 99-07-0, 3-Dimethylaminophenol 99-31-0, 5-Aminoisophthalic acid 99-50-3, 3,4-Dihydroxybenzoic acid 99-56-9, 1,2-Diamino-4-nitrobenzene 100-01-6, 4-Nitroaniline, biological studies 101-77-9, 4,4'-Diaminodiphenylmethane 101-80-4, 4,4'-Diamino-diphenyl ether 106-50-3, p-Phenylenediamine, biological studies 108-45-2, m-Phenylenediamine, biological studies 108-46-3, Resorcin, biological studies 108-72-5, 1,3,5-Triaminobenzene 108-73-6, Phloroglucine 109-00-2, 3-Hydroxypyridine 110-85-0, Piperazine, biological studies 110-86-1, Pyridine, biological studies 118-12-7, 1,3,3-Trimethyl-2-methyleneindoline 118-70-7, 4,5,6-Triamino pyrimidine 118-92-3, 2-Aminobenzoic acid 119-34-6, 4-Amino-2-nitrophenol 119-59-5, 4,4'-Diaminodiphenyl sulfoxide 119-70-0, 4,4'-Diaminodiphenylamine-2-sulfonic acid 120-72-9D, Indole, derivs. 121-47-1, 3-Aminobenzene sulfonic acid 121-57-3, 4-Aminobenzene sulfonic acid 123-30-8, 4-Aminophenol 123-31-9, Hydroquinone, biological studies 123-75-1, Pyrrolidine, biological studies 139-65-1, 4,4'-Diaminodiphenyl sulfide 141-84-4, Rhodanine 141-86-6, 2,6-Diamino pyridine 142-08-5, 2-Hydroxypyridine 147-85-3, L-Proline, biological studies 149-91-7, Gallic acid, biological studies 150-13-0, 4-Aminobenzoic acid 150-19-6, 3-Methoxyphenol 150-76-5, 4-Methoxy phenol 156-81-0, 2,4-Diaminopyrimidine 260-94-6D, Acridine, derivs. 288-13-1, Pyrazole 288-32-4, Imidazole, biological studies 288-88-0, 1H-1,2,4-Triazole 452-58-4, 2,3-Diamino pyridine 462-08-8, 3-Amino pyridine 480-66-0 488-87-9, 2,5-Dimethylresorcin 496-15-1D, Indoline, derivs. 496-73-1, 4-Methylresorcin 498-94-2, Piperidine-4-carboxylic acid 504-15-4 504-17-6, Thiobarbituric acid 504-24-5, 4-Amino pyridine 504-29-0, 2-Amino pyridine 517-22-6, 2,4-Dimethyl-3-ethylpyrrole 533-31-3, 3,4-Methylenedioxyphenol 533-73-3, Hydroxyhydroquinone 535-75-1, Piperidine-2-carboxylic acid 535-87-5, 3,5-Diaminobenzoic acid 537-65-5, 4,4'-Diaminodiphenyl amine 553-86-6, Cumaranone 556-03-6, Tyrosine 570-24-1, 6-Nitro-o-toluidine 578-66-5, 8-Aminoquinoline 580-17-6, 3-Aminoquinoline 580-22-3,

2-Aminoquinoline 582-17-2, 2,7-Dihydroxynaphthalene 591-27-5,
3-Aminophenol 603-81-6, 2,3-Diaminobenzoic acid 606-23-5,
1H-Indene-1,3(2H)-dione 606-55-3 606-57-5, 2-Amino-1-nitronaphthalene
608-08-2, 3-Indoxylacetate 608-25-3, 2-Methylresorcin 610-74-2,
2,5-Diaminobenzoic acid 610-81-1, 4-Amino-3-nitrophenol 611-03-0,
2,4-Diaminobenzoic acid 611-98-3, 4,4'-Diaminobenzophenone 615-66-7,
2-Chloro-p-phenylenediamine 615-71-4, 1,2,4-Triaminobenzene 616-45-5,
Pyrrolidone 616-47-7, 1-Methylimidazole 619-05-6, 3,4-Diaminobenzoic
acid 623-09-6, 4-Methylaminoaniline 626-64-2, 4-Hydroxypyridine
636-25-9, 2,5-Diaminophenol 876-87-9 1004-74-6, 2,4,5,6-
Tetraaminopyrimidine 1004-75-7, 4-Hydroxy-2,5,6-triaminopyrimidine
1123-55-3, 7-Amino-benzothiazole 1125-60-6, 5-Aminoisoquinoline
1197-55-3, 4-Amino-phenylacetic acid 1455-77-2, 3,5-Diamino-1,2,4-
triazole 1571-72-8, 3-Amino-4-hydroxybenzoic acid 1820-80-0,
3-Aminopyrazole 2374-03-0, 4-Amino-3-hydroxybenzoic acid 2380-84-9,
7-Hydroxyindole 2510-01-2 2654-52-6, 2,3-Dimethylbenzothiazolium-p-
toluene sulfonate 2785-06-0, 2,3-Dimethylbenzothiazoliumiodide
2835-95-2, 2-Methyl-5-aminophenol 2835-99-6, 3-Methyl-p-aminophenol
2871-01-4, HC Red 3 3131-52-0, 5,6-Dihydroxyindole 3158-63-2,
1,3-Dimethylthiobarbituric acid 3167-49-5, 6-Aminonicotinic acid
3301-75-5, Benz[c]acridine-7-carboxaldehyde 3769-62-8, Gallion
3855-78-5, 2,3,4-Trimethylpyrrole 4318-76-7, 2,5-Diamino pyridine
4331-29-7, 7-Aminobenzimidazole 4506-66-5, 1,2,4,5-Tetraaminobenzene-
tetrahydrochloride 4928-43-2, 2-Dimethylamino-5-amino pyridine
5007-67-0, 3,3',4,4'-Tetraaminobenzophenone 5099-39-8,
2-[2-(Diethylamino)ethylamino]-5-nitroaniline 5131-58-8 5192-03-0,
5-Aminoindole 5192-04-1, 7-Aminoindole 5192-23-4, 4-Aminoindole
5217-47-0, 1,3-Diethylthiobarbituric acid 5307-14-2,
1,4-Diamino-2-nitrobenzene 5318-27-4, 6-Aminoindole 5418-63-3,
1,2,3,3-Tetramethyl-3H-indoliumiodide 5434-20-8, 3-Aminophthalic acid
5718-83-2, Rhodanine-3-acetic acid 5850-35-1, Acid blue 29 5930-28-9,
2,6-Dichloro-4-aminophenol 5959-52-4, 3-Amino-2-naphthoic acid
6201-65-6, 2-Chlororesorcin 6222-46-4, Palatine chrome green GC
6247-27-4, Mordant brown 4 6259-50-3, 6-Dimethylamino-4-hydroxy-2-
naphthalene sulfonic acid 6358-09-4, 2-Amino-6-chloro-4-nitrophenol
6399-72-0, 6-Amino-7-hydroxynaphthalene-2-sulfonic acid 6628-04-2,
4-Aminoquinaldine 6634-82-8, 4-Amino-4'-nitrostilbene-2,2'-disulfonic
acid disodium salt 6967-12-0, 6-Aminoindazole 7074-03-5 7336-20-1
7411-49-6, [1,1'-Biphenyl]-3,3',4,4'-tetramine, tetrahydrochloride
7722-84-1, Hydrogen peroxide, biological studies 7749-47-5,
2-Amino-4-methoxy-6-methylpyrimidine 7768-28-7, 2-(2-Hydroxyethyl)phenol
10173-66-7, 1-Amino-4-nitro-2-(2-nitrobenzylideneamino)benzene
10228-97-4 13754-19-3, 4,5-Diaminopyrimidine 14268-66-7,
3,4-Methylenedioxyaniline 16082-33-0, 3,5-Diaminopyrazole 16859-86-2,
1,4-Dimethylquinolinium-iodide 16867-03-1, 2-Amino-3-hydroxy-pyridine
19335-11-6, 5-Aminoindazole 20103-09-7, 2,5-Dichloro-p-phenylenediamine
22715-34-0, 2-Hydroxy-4,5,6-triaminopyrimidine 23244-87-3,
2,4,5-Triaminopyridine 23894-07-7, 3,6-Dihydroxy-2,7-naphthalene
disulfonic acid 24119-24-2, N,N-Bis-[2-(4-aminophenoxy)ethyl]methylaniline
, trihydrochloride 24905-87-1, HC Red 7 28020-38-4,
2,3-Diamino-6-methoxypyridine 29705-39-3 31835-64-0,
3-Amino-3'-nitrobiphenyl 31905-57-4, Nitrophenylenediamine
41927-50-8 42952-29-4, 1-Ethyl-2-methylnaphtho[1,2-d]thiazolium-
p-toluene sulfonate 43093-74-9, Phenol, aminonitro- 46791-37-1
50610-28-1 51387-92-9, Phenol, 4-amino-2-[(diethylamino)methyl]-
54381-16-7, N,N-Bis(2-hydroxyethyl)-p-phenylenediamine sulfate
55302-96-0, 2-Methyl-5-(2-hydroxyethylamino)-phenol 56932-44-6, HC
Yellow 5 58480-17-4, 1,2-Dimethylnaphtho[1,2-d]thiazolium-p-toluene
sulfonate 61224-35-9, 1,2,3,3-Tetramethyl-3H-indolium-p-toluene

sulfonate 61693-42-3, 3-Amino-2,4-dichloro phenol 62496-02-0,
2-Methylamino-4,5,6-triamino-pyrimidine 63969-46-0, Bis(5-amino-2-
hydroxyphenyl)methane 64993-07-3, 5-Amino-6-nitrobenzo-1,3-dioxole
66635-40-3, 4,4'-Diaminostilbene-dihydrochloride 68391-32-2
69825-83-8, 6-Nitro-2,5-diaminopyridine 70643-19-5, 2,4-
Diaminophenoxyethanol 74586-24-6 74918-21-1, 1,3-Bis(2,4-
diaminophenoxy)propane, tetrahydrochloride 77484-77-6,
3-Amino-6-methylamino-2-nitropyridine 79352-72-0, 4-Amino-2-
aminomethylphenol 82576-75-8, HC Violet 1 83763-47-7,
2-Amino-4-(2-hydroxyethylamino)anisole 84540-47-6, 2,6-Dihydroxy-3,4-
dimethylpyridine 84540-50-1, 6-Methyl-3-amino-2-chloro phenol
85679-78-3, 3,5-Diamino-2,6-dimethoxypyridine 85926-99-4,
4-Hydroxyindoline 90817-34-8, 3-Amino-2-methylamino-6-methoxypyridine
93841-24-8, 2-(2,5-Diaminophenyl)ethanol 93923-57-0 95576-89-9, HC Red
10 104333-09-7, 2-Hydroxymethyl-4-aminophenol 110102-86-8,
2-Methyl-5-amino-4-chloro phenol 110952-48-2, Phenol,
4-amino-2-[(dimethylamino)methyl]- 113139-13-2, Acridine-1-
carboxaldehyde 113139-14-3, Acridine-2-carboxaldehyde 113139-15-4,
Acridine-3-carboxaldehyde 113139-16-5, Acridine-4-carboxaldehyde
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)

(oxidative hair dyes containing acridine aldehydes and acridine
ketones)

IT 114402-54-9, 1,3-Bis(4-aminophenylamino)propane 115423-86-4,
1,3-Diamino-2,4-dimethoxybenzene 117907-43-4 126335-41-9,
2,5-Diaminophenetole 128729-30-6, 1,3-Bis[N-(4-aminophenyl)-2-
hydroxyethylamino]-2-propanol 130582-56-8, 1,3-Bis(4-aminophenylamino)-2-
propanol 137290-86-9, 5-(2-Hydroxyethylamino)-4-methoxy-2-methylphenol
144644-13-3, 1,8-Bis(2,5-diaminophenoxy)-3,6-dioxaoctane,
tetrahydrochloride 155601-17-5, 4,5-Diamino-1-(2-hydroxyethyl)pyrazole
155758-48-8 159519-79-6, Brenzcatechin 159661-42-4,
2,5-Dihydroxy-4-morpholinoaniline 202525-71-1, 2,5-Dihydroxy-4-
morpholinoaniline-dihydrobromide 202525-73-3, 2,4,5-Triaminophenol-
trihydrochloride 202525-74-4, Pentaaminobenzene-pentahydrochloride
202525-75-5, Hexaaminobenzene-hexahydrochloride 202525-76-6,
2,4,6-Triaminoresorcin-trihydrochloride 202525-77-7 202525-78-8,
4,6-Diaminopyrogallol-dihydrochloride 202525-79-9 211872-02-5
215377-52-9, 3,4-Methylenediaminoaniline 220118-56-9,
1,2,3,3-Tetramethyl-3H-indolium-methane sulfonate 223383-77-5,
4-Amino-3-hydroxynaphthalene-sulfonic acid 260981-02-0,
N-(2-Methoxyethyl)-p-phenylenediamine 260981-03-1, 2,3-Dichloro-p-
phenylenediamine 262853-93-0, Piperidine-3-carboxylic acid
346593-13-3, 3-Amino-4-nitroacenaphthene 408327-11-7 408327-13-9
408327-15-1 408327-19-5 408327-21-9 408327-23-1 408327-25-3
408327-27-5 408327-29-7 408327-31-1 408327-34-4 408327-36-6
408327-38-8 408327-40-2 408327-45-7 408327-48-0 408327-52-6
408327-61-7

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)

(oxidative hair dyes containing acridine aldehydes and acridine ketones)

IT 885-23-4, Acridine-9-carboxaldehyde

RL: COS (Cosmetic use); RCT (Reactant); BIOL (Biological study); RACT
(Reactant or reagent); USES (Uses)

(oxidative hair dyes containing acridine aldehydes and acridine ketones)

IT 149969-54-0P 408327-08-2P

RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological
study); PREP (Preparation); USES (Uses)

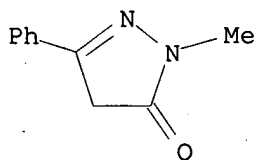
(oxidative hair dyes containing acridine aldehydes and acridine ketones)

IT 77-78-1, Dimethyl sulfate 80-48-8, p-Toluene sulfonic acid methyl ester

138-89-6, N,N-Dimethyl p-nitrosoaniline 611-64-3, 9-Methylacridine

RL: RCT (Reactant); RACT (Reactant or reagent)

(oxidative hair dyes containing acridine aldehydes and acridine ketones)
 IT 41922-14-9P, 9,10-Dimethylacridinium methylsulfate
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (oxidative hair dyes containing acridine aldehydes and acridine ketones)
 IT 41927-50-8
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (oxidative hair dyes containing acridine aldehydes and acridine
 ketones)
 RN 41927-50-8 HCAPLUS
 CN 3H-Pyrazol-3-one, 2,4-dihydro-2-methyl-5-phenyl- (9CI) (CA INDEX NAME)



L11 ANSWER 8 OF 30 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2001:923231 HCAPLUS

DN 136:58497

TI Hair dyeing compositions containing oxocyclopentenones

IN Gross, Wibke; Hoeffkes, Horst; Martin, Hans-Dieter; Moeller, Hinrich;
 Oberkobusch, Doris

PA Henkel K.-G.a.A., Germany

SO Ger. Offen., 18 pp.

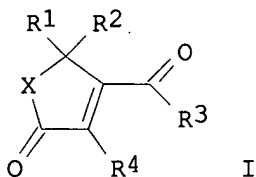
CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 10029933	A1	20011220	DE 2000-10029933	20000617
	WO 2001097762	A1	20011227	WO 2001-EP6545	20010609
	W: AU, JP, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
	EP 1311231	A1	20030521	EP 2001-949394	20010609
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				
PRAI	DE 2000-10029933	A	20000617		
	WO 2001-EP6545	W	20010609		
OS	MARPAT 136:58497				
GI					

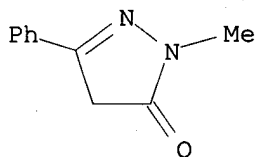


- AB Hair dyes contain oxocyclopentene derivative (I, R1 and R2 = H, or a C1-4 alkyl, R3 and R4 = H, C1-4 alkyl or group of aryls, the remainder of R1 and R2 and/or R3 and R4 can form a ring, and X = C:O, C:S or CH2). Thus, 2,5,5-trimethyl-3-oxocyclopent-1-enecarboxaldehyde (II) was prepared and used in a formulation consisting of II 8, Natrosol 250HR 2.0 and water to 100 g.
- IC ICM A61K007-13
- CC 62-3 (Essential Oils and **Cosmetics**)
Section cross-reference(s): 23
- ST oxacyclopentene hair dye prepn
- IT Amines, biological studies
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(aromatic, primary; hair dyeing compns. containing oxocyclopentenenes)
- IT Amines, biological studies
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(aryl, secondary; hair dyeing compns. containing oxocyclopentenenes)
- IT Amines, biological studies
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(diamines, aromatic; hair dyeing compns. containing oxocyclopentenenes)
- IT Hair preparations
(dyes; hair dyeing compns. containing oxocyclopentenenes)
- IT Shampoos
(hair dyeing compns. containing oxocyclopentenenes)
- IT Amino acids, biological studies
Nitriles, biological studies
Phenols, biological studies
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(hair dyeing compns. containing oxocyclopentenenes)
- IT Caseins, biological studies
Collagens, biological studies
Elastins
Keratins
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(hydrolyzates; hair dyeing compns. containing oxocyclopentenenes)
- IT Peptides, biological studies
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(oligopeptides; hair dyeing compns. containing oxocyclopentenenes)
- IT Protein hydrolyzates
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(soya; hair dyeing compns. containing oxocyclopentenenes)
- IT Protein hydrolyzates
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(wheat gluten; hair dyeing compns. containing oxocyclopentenenes)
- IT Glutens
RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(wheat, hydrolyzates; hair dyeing compns. containing oxocyclopentenenes)
- IT 56-87-1, L-Lysine, biological studies 59-48-3 59-92-7, biological studies 60-18-4, L-Tyrosine, biological studies 62-53-3, Benzenamine, biological studies 63-91-2, L-Phenylalanine, biological studies 65-49-6 67-52-7, 2,4,6(1H,3H,5H)-Pyrimidinetrione 70-18-8, biological studies 70-26-8, L-Ornithine 71-00-1, L-Histidine, biological studies 73-22-3, L-Tryptophan, biological studies 74-79-3, L-Arginine, biological studies 77-32-7 81-11-8 83-30-7 83-33-0 83-56-7, 1,5-Naphthalenediol 84-65-1, 9,10-Anthracenedione 84-65-1D, Anthraquinone, derivs. 87-02-5 87-66-1, 1,2,3-Benzenetriol 88-21-1 88-74-4 89-57-6 89-86-1 90-05-1 90-15-3, 1-Naphthalenol 90-20-0 91-29-2 92-44-4, 2,3-Naphthalenediol 92-65-9 95-54-5, 1,2-Benzenediamine, biological studies 95-55-6 95-70-5 95-88-5 96-91-3 96-93-5 98-37-3 99-05-8 99-07-0 99-31-0 99-50-3

99-56-9 100-01-6, biological studies 101-77-9 101-80-4 102-32-9
106-50-3, 1,4-Benzenediamine, biological studies 107-95-9,
 β -Alanine 108-45-2, 1,3-Benzenediamine, biological studies
108-46-3, 1,3-Benzenediol, biological studies 108-72-5,
1,3,5-Benzenetriamine 108-73-6, 1,3,5-Benzenetriol 109-00-2,
3-Pyridinol 110-85-0, Piperazine, biological studies 110-86-1,
Pyridine, biological studies 110-89-4, Piperidine, biological studies
116-63-2 118-12-7 118-70-7, 4,5,6-Pyrimidinetriamine 118-92-3
119-34-6 119-59-5 119-70-0 119-72-2 120-72-9, 1H-Indole,
biological studies 120-80-9, 1,2-Benzenediol, biological studies
121-47-1 121-57-3 123-30-8 123-31-9, 1,4-Benzenediol, biological
studies 123-75-1, Pyrrolidine, biological studies 139-65-1 141-84-4
141-86-6, 2,6-Pyridinediamine 142-08-5, 2(1H)-Pyridinone 147-85-3,
L-Proline, biological studies 149-87-1 149-91-7, biological studies
150-13-0 150-19-6 150-75-4 150-76-5 156-81-0, 2,4-
Pyrimidinediamine 288-13-1, 1H-Pyrazole 288-32-4, 1H-Imidazole,
biological studies 288-88-0, 1H-1,2,4-Triazole 462-08-8,
3-Pyridinamine 480-66-0 488-87-9 496-73-1 498-94-2,
4-Piperidinecarboxylic acid 498-95-3, 3-Piperidinecarboxylic acid
500-85-6D, Indophenol, derivs. 504-15-4 504-17-6 504-24-5,
4-Pyridinamine 504-29-0, 2-Pyridinamine 517-22-6 533-31-3,
1,3-Benzodioxol-5-ol 533-73-3, 1,2,4-Benzenetriol 535-75-1,
2-Piperidinecarboxylic acid 535-87-5 537-65-5 553-86-6,
2(3H)-Benzofuranone 556-03-6, Tyrosine 570-24-1 578-66-5,
8-Quinolinamine 580-17-6, 3-Quinolinamine 580-22-3, 2-Quinolinamine
582-17-2, 2,7-Naphthalenediol 591-27-5 603-81-6 606-23-5,
1H-Indene-1,3(2H)-dione 606-55-3 606-57-5 608-08-2 608-25-3
610-74-2 610-81-1 611-03-0 611-98-3 614-82-4 615-66-7
615-71-4, 1,2,4-Benzenetriamine 616-45-5, 2-Pyrrolidinone 616-47-7
619-05-6 623-09-6 626-64-2, 4-Pyridinol 636-25-9 876-87-9
934-22-5, 1H-Benzimidazol-5-amine 1004-74-6, Pyrimidinetetramine
1004-75-7 1123-55-3, 7-Benzothiazolamine 1123-93-9,
5-Benzothiazolamine 1125-60-6, 5-Isoquinolinamine 1197-55-3
1455-77-2, 1H-1,2,4-Triazole-3,5-diamine 1571-72-8 1820-80-0,
1H-Pyrazol-3-amine 1953-54-4, 1H-Indol-5-ol 2374-03-0 2380-84-9,
1H-Indol-7-ol 2380-86-1, 1H-Indol-6-ol 2380-94-1, 1H-Indol-4-ol
2510-01-2 2654-52-6 2785-06-0 2835-98-5 2835-99-6 2871-01-4
3131-52-0, 1H-Indole-5,6-diol 3158-63-2 3167-49-5 3342-78-7
3855-78-5 4331-29-7, 1H-Benzimidazol-4-amine 4506-66-5 4928-43-2
5007-67-0 5099-39-8 5131-58-8 5192-03-0, 1H-Indol-5-amine
5192-04-1, 1H-Indol-7-amine 5192-23-4, 1H-Indol-4-amine 5217-47-0
5307-14-2 5318-27-4, 1H-Indol-6-amine 5345-47-1 5418-63-3
5434-20-8 5718-83-2 5850-35-1 5959-52-4 6201-65-6 6247-27-4
6259-50-3 6358-09-4 6399-72-0 6628-04-2 6634-82-8 6967-12-0,
1H-Indazol-6-amine 7336-20-1 7411-49-6 7575-35-1 7749-47-5
7768-28-7 10173-66-7 13754-19-3, 4,5-Pyrimidinediamine 14268-66-7,
1,3-Benzodioxol-5-amine 14338-36-4 16082-33-0, 1H-Pyrazole-3,5-diamine
16859-86-2 16867-03-1 19335-11-6, 1H-Indazol-5-amine 20103-09-7
22715-34-0 23244-87-3, 2,4,5-Pyridinetriamine 23894-07-7 24119-24-2
24905-87-1 28020-38-4 28491-52-3 29539-03-5 29705-39-3
31835-64-0 39267-74-8 **41927-50-8** 41946-53-6 42952-29-4
49647-58-7 50610-28-1 51387-92-9 55302-96-0 56932-44-6
58480-17-4 61224-35-9 61693-42-3 62496-02-0 62952-42-5
63969-46-0 64993-07-3 66566-48-1 66635-40-3 68391-32-2
69825-83-8 70643-19-5 71134-97-9 74918-21-1 77484-77-6
79352-72-0 82576-75-8 83220-31-9 83220-31-9D, mixts. containing
83763-47-7

RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
(hair dyeing compns. containing oxocyclopentenes)

IT 83960-83-2 84540-47-6 84540-50-1 85679-78-3 85926-99-4
 87798-73-0 87814-15-1 90817-34-8 93841-24-8 93923-57-0
 95576-89-9 102574-14-1 104333-09-7 108946-76-5 110102-86-8
 110952-48-2 114402-54-9 115423-86-4 117907-43-4 126335-41-9
 128729-30-6 130582-56-8 137290-86-9 144644-13-3 155601-17-5
 159661-42-4 202525-73-3 202525-74-4 202525-75-5 202525-76-6
 202525-77-7 202525-78-8 202525-79-9 211872-02-5 215377-52-9
 220118-56-9 251450-62-1 346593-13-3 346684-81-9 380897-75-6
 380897-77-8 380897-79-0 381211-38-7 381211-39-8 381211-42-3
 381211-44-5 381211-96-7 381212-15-3 381212-17-5
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (hair dyeing compns. containing oxocyclopentenones)
 IT 58626-49-6P 108946-70-9P
 RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological
 study); PREP (Preparation); USES (Uses)
 (hair dyeing compns. containing oxocyclopentenones)
 IT 75-52-5, reactions 78-92-2, 2-Butanol 97-86-9, Isobutyl methacrylate
 541-47-9
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (hair dyeing compns. containing oxocyclopentenones)
 IT 17190-21-5P 30434-70-9P 58626-47-4P 58626-48-5P 109892-46-8P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (hair dyeing compns. containing oxocyclopentenones)
 IT 41927-50-8
 RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
 (hair dyeing compns. containing oxocyclopentenones)
 RN 41927-50-8 HCAPLUS
 CN 3H-Pyrazol-3-one, 2,4-dihydro-2-methyl-5-phenyl- (9CI) (CA INDEX NAME)



L11 ANSWER 9 OF 30 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2001:479145 HCAPLUS

DN 135:81810

TI Hair dyeing preparations containing benzofurazan derivs.

IN Moeller, Hinrich; Oberkobusch, Doris; Hoeffkes, Horst

PA Henkel K.-G.a.A., Germany

SO Ger. Offen., 12 pp.

CODEN: GWXXBX

DT Patent

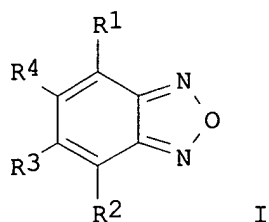
LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 19962880	A1	20010628	DE 1999-19962880	19991224
	WO 2001047485	A1	20010705	WO 2000-EP12821	20001215
	W: AU, JP, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
PRAI	DE 1999-19962880	A	19991224		

KATHLEEN FULLER EIC 1700 REMSEN 4B28 571/272-2505

OS MARPAT 135:81810
GI



- AB The invention concerns the usage benzofurazan derivs. [(I), R groups are defined] in hair dyeing prepns. Thus 5 mmol 7-chloro-5-nitrobenzofurazan was mixed with 5 mmol of various oxidation dye precursors along with 5 mmol sodium acetate and a drop of fatty alkyl ethersulfate solution in 50 mL water at 50°C. After cooling the compns. were applied onto hair; the usage of 2,5-diaminotoluene x H2SO4 resulted brown-violet shade.
- IC ICM A61K007-13
- CC 62-3 (Essential Oils and **Cosmetics**)
- ST hair dyeing prepn benzofurazan deriv
- IT Dyes
(direct, hair; hair dyeing prepns. containing benzofurazan derivs.)
- IT Hair preparations
(dyes, oxidative; hair dyeing prepns. containing benzofurazan derivs.)
- IT Oxidizing agents
(hair dyeing prepns. containing benzofurazan derivs.)
- IT Carbonates, biological studies
Caseins, biological studies
Collagens, biological studies
Elastins
Halides
Keratins
Phosphates, biological studies
Sulfates, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(hair dyeing prepns. containing benzofurazan derivs.)
- IT 95576-89-9, HC Red 10
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(HC Red Number 10; hair dyeing prepns. containing benzofurazan derivs.)
- IT 24905-87-1, HC Red 7
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(HC Red Number 7; hair dyeing prepns. containing benzofurazan derivs.)
- IT 346684-81-9
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(Palatine Chrome Green; hair dyeing prepns. containing benzofurazan derivs.)
- IT 50-21-5D, Lactic acid, salts 56-87-1, L-Lysine, biological studies
59-48-3, Oxindol 59-92-7, DOPA, biological studies 60-18-4,
L-Tyrosine, biological studies 62-53-3D, Aniline, derivs. 63-91-2,
L-Phenylalanine, biological studies 64-18-6D, Formic acid, salts,
biological studies 64-19-7D, Acetic acid, salts, biological studies

65-49-6, 4-Aminosalicylic acid 67-52-7, Barbituric acid 70-26-8, Ornithine 71-00-1, L-Histidine, biological studies 73-22-3, L-Tryptophane, biological studies 74-79-3, L-Arginine, biological studies 77-32-7 77-92-9, Citric acid, biological studies 77-92-9D, Citric acid, salts 79-09-4D, Propionic acid, salts 79-14-1D, salts 83-30-7, 2,4,6-Trihydroxybenzoic acid 83-56-7, 1,5-Dihydroxynaphthalene 87-02-5, 7-Amino-4-hydroxynaphthalene-2-sulfonic acid 87-66-1, Pyrogallol 87-69-4D, salts, biological studies 88-21-1, 2-Aminobenzene sulfonic acid 88-74-4, 2-Nitroaniline 89-57-6, 5-Aminosalicylic acid 89-86-1, 2,4-Dihydroxybenzoic acid 90-05-1, 2-Methoxy phenol 90-15-3, 1-Naphthol 90-20-0, 4-Amino-5-hydroxynaphthalene-2,7-disulfonic acid 91-29-2, 4'-Amino-4-nitrodiphenylamine-2-sulfonic acid 92-44-4, 2,3-Dihydroxynaphthalene 92-65-9, N-(2-Hydroxyethyl)-N-ethyl-p-phenylenediamine 95-54-5, o-Phenylenediamine, biological studies 95-55-6, 2-Aminophenol 95-70-5, 2,5-Diaminotoluol 95-88-5, 4-Chlororesorcin 96-91-3, 1-Hydroxy-2-amino-4,6-dinitrobenzene 98-37-3, 3-Amino-4-hydroxybenzene sulfonic acid 98-79-3, Pyrrolidone-5-carboxylic acid 99-05-8, 3-Aminobenzoic acid 99-07-0, 3-Dimethylaminophenol 99-31-0, 5-Aminoisophthalic acid 99-50-3, 3,4-Dihydroxybenzoic acid 99-56-9, 1,2-Diamino-4-nitrobenzene 100-01-6, 4-Nitroaniline, biological studies 101-77-9, 4,4'-Diaminodiphenylmethane 101-80-4, 4,4'-Diaminodiphenyl ether 102-32-9, 3,4-Dihydroxyphenylacetic acid 106-50-3, p-Phenylenediamine, biological studies 106-51-4, Quinone, biological studies 107-92-6D, Butyric acid, salts 107-95-9, β -Alanine 108-45-2, m-Phenylenediamine, biological studies 108-72-5, 1,3,5-Triaminobenzene 108-73-6, Phloroglucine 109-00-2, 3-Hydroxypyridine 109-52-4D, Valeric acid, salts 110-85-0, Piperazine, biological studies 110-86-1, Pyridine, biological studies 110-89-4, Piperidine, biological studies 118-12-7, 1,3,3-Trimethyl-2-methyleneindoline 118-70-7, 4,5,6-Triaminopyrimidine 118-92-3, 2-Aminobenzoic acid 119-34-6, 4-Amino-2-nitrophenol 119-59-5, 4,4'-Diaminodiphenylsulfoxide 119-70-0, 4,4'-Diaminodiphenylamine-2-sulfonic acid 121-47-1, 3-Aminobenzene sulfonic acid 121-57-3, 4-Aminobenzene sulfonic acid 123-30-8, 4-Aminophenol 123-75-1, Pyrrolidine, biological studies 139-65-1, 4,4'-Diaminodiphenylsulfide 141-84-4, Rhodanine 141-86-6, 2,6-Diamino-pyridine 142-08-5, 2-Hydroxypyridine 142-62-1D, Hexanoic acid, salts 147-85-3, L-Proline, biological studies 149-91-7, Gallic acid, biological studies 150-13-0, 4-Aminobenzoic acid 150-19-6, 3-Methoxy phenol 150-75-4, 4-Methylaminophenol 150-76-5, 4-Methoxy phenol 156-81-0, 2,4-Diamino-pyrimidine 273-09-6D, Benzofurazan, derivs. 288-13-1, Pyrazole 288-32-4, Imidazole, biological studies 288-88-0, 1H-1,2,4-Triazole 452-58-4, 2,3-Diamino-pyridine 462-08-8, 3-Amino-pyridine 480-66-0 488-87-9, 2,5-Dimethylresorcin 496-73-1, 4-Methylresorcin 498-94-2, Piperidine-4-carboxylic acid 504-15-4 504-17-6, Thiobarbituric acid 504-24-5, 4-Amino-pyridine 504-29-0, 2-Amino-pyridine 517-22-6, 2,4-Dimethyl-3-ethylpyrrol e 533-31-3, 3,4-Methylenedioxyphenol 535-75-1, Piperidine-2-carboxylic acid 535-87-5, 3,5-Diaminobenzoic acid 537-65-5, 4,4'-Diaminodiphenylamine 553-86-6, Cumaranone 570-24-1, 6-Nitro-o-toluidine 578-66-5, 8-Aminoquinoline 580-17-6, 3-Aminoquinoline 580-22-3, 2-Aminoquinoline 582-17-2, 2,7-Dihydroxynaphthalene 591-27-5, 3-Aminophenol 603-81-6, 2,3-Diaminobenzoic acid 606-55-3, 1-Ethyl-2-quinaldinium iodide 606-57-5, 2-Amino-1-nitronaphthalene 608-08-2, 3-Indoxylacetate 608-25-3, 2-Methylresorcin 610-74-2, 2,5-Diaminobenzoic acid 610-81-1, 4-Amino-3-nitrophenol 611-03-0, 2,4-Diaminobenzoic acid 611-98-3, 4,4'-Diaminobenzophenone 615-66-7, 2-Chloro-p-phenylenediamine 615-71-4, 1,2,4-Triaminobenzene 616-45-5, Pyrrolidone 616-47-7, 1-Methylimidazole 619-05-6, 3,4-Diaminobenzoic acid 623-09-6,

4-Methylaminoaniline 626-64-2, 4-Hydroxypyridine 636-25-9,
2,5-Diaminophenol 876-87-9 934-22-5, 5-Aminobenzimidazole 1004-74-6,
Pyrimidinetetramine 1004-75-7 1123-55-3, 7-Amino-benzothiazole
1125-60-6, 5-Aminoisoquinoline 1197-55-3, 4-Amino-phenylacetic acid
1571-72-8, 3-Amino-4-hydroxybenzoic acid 1953-54-4, 5-Hydroxyindole
2380-84-9, 7-Hydroxyindole 2380-86-1, 6-Hydroxyindole 2380-94-1,
4-Hydroxyindole 2654-52-6, 2,3-Dimethylbenzothiazolium-p-
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2835-95-2, 2-Methyl-5-aminophenol 2835-99-6, 3-Methyl-4-aminophenol
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1,3-Dimethylthiobarbituric acid 3167-49-5, 6-Aminonicotinic acid
3769-62-8, Gallion 3855-78-5, 2,3,4-Trimethylpyrrole 4318-76-7,
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1,2,4,5-Tetraaminobenzene-tetrahydrochloride 4928-43-2,
2-Dimethylamino-5-amino-pyridine 4987-97-7, 3,3',4,4'-Tetraaminodiphenyl
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4-Aminoindole 5217-47-0, 1,3-Diethylthiobarbituric acid 5307-14-2,
1,4-Diamino-2-nitrobenzene 5318-27-4, 6-Aminoindole 5345-47-1,
2-Aminonicotinic acid 5418-63-3, 1,2,3,3-Tetramethyl-3H-indoliumiodide
5434-20-8, 3-Aminophthalic acid 5718-83-2, Rhodanine-3-acetic acid
5850-35-1, Acid Blue 29 5930-28-9, 2,6-Dichloro-4-aminophenol
5959-52-4, 3-Amino-2-naphthoic acid 6201-65-6, 1,3-Benzenediol,
2-chloro- 6247-27-4 6259-50-3, 6-Dimethylamino-4-hydroxy-2-naphthalene
sulfonic acid 6358-09-4, 2-Amino-6-chloro-4-nitrophenol 6399-72-0,
6-Amino-7-hydroxynaphthalene-2-sulfonic acid 6628-04-2,
4-Aminoquinaldine 6634-82-8, 4-Amino-4'-nitrostilbene-2,2'-disulfonic
acid disodium salt 6967-12-0, 6-Aminoindazole 7336-20-1 7429-90-5D,
Aluminum, salts, biological studies 7439-89-6D, Iron, salts, biological
studies 7439-93-2D, Lithium, salts, biological studies 7439-95-4D,
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biological studies 7440-09-7D, Potassium, salts, biological studies
7440-23-5D, Sodium, salts, biological studies 7440-24-6D, Strontium,
salts, biological studies 7440-39-3D, Barium, salts, biological studies
7440-48-4D, Cobalt, salts, biological studies 7440-50-8D, Copper, salts,
biological studies 7440-66-6D, Zinc, salts, biological studies
7440-70-2D, Calcium, salts, biological studies 7575-35-1,
N,N-Bis(2-hydroxyethyl)-p-phenylenediamine 7722-84-1, Hydrogen peroxide,
biological studies 7749-47-5, 2-Amino-4-methoxy-6-methylpyrimidine
7768-28-7, 2-(2-Hydroxyethyl)phenol 10173-66-7, 1-Amino-4-nitro-2-(2-
nitrobenzylideneamino)benzene 10199-89-0, 7-Chloro-4-nitrobenzofurazan
13598-36-2D, Phosphonic acid, salts 13754-19-3, 4,5-Diaminopyrimidine
14268-66-7, 3,4-Methylenedioxylaniline 16082-33-0, 3,5-Diaminopyrazole
16867-03-1, 2-Amino-3-hydroxy-pyridine 17348-69-5, 5-Chloro-benzofuroxan
19155-86-3, 5-Chlorobenzofurazan 19335-11-6, 5-Aminoindazole
20103-09-7, 2,5-Dichloro-p-phenylenediamine 22715-34-0 23244-87-3,
2,4,5-Triamino-pyridine 23894-07-7 24119-24-2, N,N-Bis[2-(4-
aminophenoxy)ethyl]methylamine-trihydrochloride 24144-00-1,
1,4-Dimethyl-quinaldinium-iodide 28020-38-4, 2,3-Diamino-6-methoxy-
pyridine 29270-56-2, 2,1,3-Benzoxadiazole, 4-fluoro-7-nitro-
29539-03-5, 5,6-Dihydroxyindoline 29705-39-3 31835-64-0,
3-Amino-3'-nitrobiphenyl 36389-16-9, 5-Fluoro-benzofuroxan
41927-50-8 42952-29-4, 1-Ethyl-2-methylnaphtho[1,2-d]thiazolium-
p-toluene sulfonate 50610-28-1 51387-92-9 53666-79-8,
3-Amino-1H-pyrazol-5-ol 55302-96-0, 2-Methyl-5-(2-
hydroxyethylamino)phenol 56932-44-6, HC Yellow 5 58480-17-4,
1,2-Dimethylnaphtho[1,2-d]thiazolium-p-toluene sulfonate 61224-35-9,
1,2,3,3-Tetramethyl-3H-indolium-p-toluene sulfonate 61693-42-3,

3-Amino-2,4-dichlorophenol 62496-02-0 64993-07-3, 5-Amino-6-nitrobenzodioxole 66635-40-3, 4,4'-Diaminostilbene-dihydrochloride 68391-32-2 69825-83-8, 6-Nitro-2,5-diaminopyridine 70643-19-5, 3-Amino-4-(2'-hydroxyethyloxy)aniline 71134-97-9 74918-21-1, 1,3-Bis(2,4-diaminophenoxy)propane-tetrahydrochloride 77484-77-6, 3-Amino-6-methylamino-2-nitropyridine
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(hair dyeing preps. containing benzofurazan derivs.)

IT 79352-72-0, 4-Amino-2-aminomethylphenol 81377-14-2 82576-75-8, HC Violet 1 83763-47-7, 2-Amino-4-(2-hydroxyethylamino)anisole 84540-47-6, 2,6-Dihydroxy-3,4-dimethylpyridine 84540-50-1, 6-Methyl-3-amino-2-chlorophenol 84806-27-9 85679-78-3, 3,5-Diamino-2,6-dimethoxy-pyridine 85926-99-4, 4-Hydroxyindoline 90817-34-8, 3-Amino-2-methylamino-6-methoxy-pyridine 93841-24-8, 2-(2,5-Diaminophenyl)ethanol 93923-57-0 94897-04-8, 7-Chlorobenzofuroxan 94897-05-9, 4,6-Dichlorobenzofuroxan 98358-90-8 104333-09-7, 2-Hydroxymethyl-4-aminophenol 110102-86-8, 2-Methyl-5-amino-4-chlorophenol 110952-48-2 114402-54-9, 1,3-Bis(4-aminophenylamino)propane 115423-86-4, 1,3-Diamino-2,4-dimethoxybenzene 117907-43-4 126335-41-9 128729-30-6, 1,3-Bis[N-(4-aminophenyl)-2-hydroxyethylamino]-2-propanol 130582-56-8, 1,3-Bis(4-aminophenylamino)-2-propanol 137290-86-9, 5-(2-Hydroxyethylamino)-4-methoxy-2-methylphenol 144644-13-3, 1,8-Bis(2,5-diaminophenoxy)-3,6-dioxaoctane tetrahydrochloride 159661-42-4, 2,5-Dihydroxy-4-morpholinoaniline 175278-60-1 192119-42-9 202525-71-1, 2,5-Dihydroxy-4-morpholinoaniline dihydrobromide 202525-73-3, 2,4,5-Triaminophenol-trihydrochloride 202525-74-4, Pentaaminobenzenepentahydrochloride 202525-75-5, Hexaaminobenzene-hexahydrochloride 202525-76-6 202525-77-7 202525-78-8, 4,6-Diaminopyrogallol-dihydrochloride 202525-79-9 215377-52-9, 3,4-Methylenediaminoaniline 216699-34-2, 7-Chloro-4-morpholinosulfonylbenzofurazan 220118-56-9 223383-77-5, 4-Amino-3-hydroxynaphthalene-sulfonic acid 260981-02-0, N-(2-Methoxyethyl)-p-phenylenediamine 260981-03-1, 2,3-Dichloro-p-phenylenediamine 262853-93-0, Piperidine-3-carboxylic acid 346593-12-2 346593-13-3
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(hair dyeing preps. containing benzofurazan derivs.)

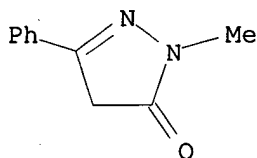
IT 41927-50-8

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(hair dyeing preps. containing benzofurazan derivs.)

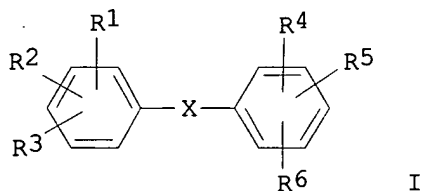
RN 41927-50-8 HCAPLUS

CN 3H-Pyrazol-3-one, 2,4-dihydro-2-methyl-5-phenyl- (9CI) (CA INDEX NAME)



DN 135:81809
 TI Hair dyeing preparations containing methylquinoline derivs.
 IN Moeller, Hinrich; Oberkobusch, Doris; Hoeffkes, Horst
 PA Henkel K.-G.a.A., Germany
 SO Ger. Offen., 12 pp.
 CODEN: GWXXBX
 DT Patent
 LA German
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 19962875	A1	20010628	DE 1999-19962875	19991224
	WO 2001047483	A1	20010705	WO 2000-EP12816	20001215
	W: AU, BR, CA, CN, CZ, HU, JP, NO, PL, RU, SK, US, VN				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
	EP 1239817	A1	20020918	EP 2000-990772	20001215
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				
	JP 2003518481	T2	20030610	JP 2001-548078	20001215
PRAI	DE 1999-19962875	A	19991224		
	WO 2000-EP12816	W	20001215		
OS	MARPAT 135:81809				
GI					



AB The invention concerns the usage of methylquinoline derivs. [(I), R groups are defined] in hair dyeing preps. Thus 4-formyl-1-methylquinoline-p-toluene sulfonate was prepared from quinoline-4-carboxaldehyde and toluene sulfonic acid Me ester and used in component A of a two-component hair dye cream. Component A contained (wt./wt.%): 4-formyl-1-methylquinoline-p-toluene 3.61; Natrosol HD250 (hydroxyethyl cellulose) 2.00; water 94.39. Component B contained (wt./wt.%): Texapon NSO 13.00; tallow fatty alc. 4.25; Lorol 1.0; ascorbic acid 0.1; sodium sulfite 0.1; N,N-bis(2-hydroxyethyl)-p-phenylene diamine 2.94; ammonia (25%) to pH 6.20. The mixt. of the two components resulted on the hair a deep violet shade.

IC ICM A61K007-13
 ICS C07D215-10
 CC 62-3 (Essential Oils and **Cosmetics**)
 ST hair dyeing prepn methylquinoline deriv
 IT Dyes
 (direct, hair; hair dyeing preps. containing methylquinoline derivs.)
 IT Hair preparations
 (dyes, oxidative; hair dyeing preps. containing methylquinoline derivs.)
 IT Oxidizing agents
 (hair dyeing preps. containing benzofurazan derivs.)
 IT Carbonates, biological studies
 Halides

Phosphates, biological studies

Sulfates, biological studies

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(hair dyeing preps. containing benzofurazan derivs.)

IT 50-21-5D, Lactic acid, salts 56-87-1, L-Lysine, biological studies
59-48-3, Oxindol 59-92-7, DOPA, biological studies 60-18-4,
L-Tyrosine, biological studies 62-53-3D, Aniline, derivs. 63-91-2,
L-Phenylalanine, biological studies 64-18-6D, Formic acid, salts,
biological studies 64-19-7D, Acetic acid, salts, biological studies
65-49-6, 4-Aminosalicylic acid 67-52-7, Barbituric acid 70-26-8,
Ornithine 71-00-1, L-Histidine, biological studies 73-22-3,
L-Tryptophane, biological studies 74-79-3, L-Arginine, biological
studies 77-32-7 77-92-9, Citric acid, biological studies 77-92-9D,
Citric acid, salts 79-09-4D, Propionic acid, salts 79-14-1D, salts
83-30-7, 2,4,6-Trihydroxybenzoic acid 83-56-7, 1,5-Dihydroxynaphthalene
87-02-5, 7-Amino-4-hydroxynaphthalene-2-sulfonic acid 87-66-1,
Pyrogallol 88-21-1, 2-Aminobenzene sulfonic acid 88-74-4,
2-Nitroaniline 89-57-6, 5-Aminosalicylic acid 89-86-1,
2,4-Dihydroxybenzoic acid 90-05-1, 2-Methoxy phenol 90-15-3,
1-Naphthol 90-20-0, 4-Amino-5-hydroxynaphthalene-2,7-disulfonic acid
92-44-4, 2,3-Dihydroxynaphthalene 95-88-5, 4-Chlororesorcin 98-37-3,
3-Amino-4-hydroxybenzene sulfonic acid 98-79-3, Pyrrolidone-5-carboxylic
acid 99-05-8, 3-Aminobenzoic acid 99-07-0, 3-Dimethylaminophenol
99-31-0, 5-Aminoisophthalic acid 99-50-3, 3,4-Dihydroxybenzoic acid
99-56-9, 1,2-Diamino-4-nitrobenzene 100-01-6, 4-Nitroaniline, biological
studies 101-77-9, 4,4'-Diaminodiphenylmethane 101-80-4,
4,4'-Diaminodiphenyl ether 102-32-9, 3,4-Dihydroxyphenylacetic acid
106-51-4, Quinone, biological studies 107-92-6D, Butyric acid, salts
108-72-5, 1,3,5-Triaminobenzene 108-73-6, Phloroglucine 109-00-2,
3-Hydroxypyridine 109-52-4D, Valeric acid, salts 110-85-0,
Piperazidine, biological studies 110-86-1, Pyridine, biological studies
110-89-4, Piperidine, biological studies 118-12-7, 1,3,3-Trimethyl-2-
methyleneindoline 118-70-7, 4,5,6-Triaminopyrimidine 118-92-3,
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4,4'-Diaminodiphenylamine-2-sulfonic acid 121-47-1, 3-Aminobenzene
sulfonic acid 121-57-3, 4-Aminobenzene sulfonic acid 123-75-1,
Pyrrolidine, biological studies 139-65-1, 4,4'-Diaminodiphenylsulfide
141-84-4, Rhodanine 141-86-6, 2,6-Diamino-pyridine 142-08-5,
2-Hydroxypyridine 142-62-1D, Hexanoic acid, salts 147-85-3, L-Proline,
biological studies 149-91-7, Gallic acid, biological studies 150-13-0,
4-Aminobenzoic acid 150-19-6, 3-Methoxy phenol 150-76-5, 4-Methoxy
phenol 156-81-0, 2,4-Diamino pyrimidine 288-13-1, Pyrazole 288-32-4,
Imidazole, biological studies 288-88-0, 1H-1,2,4-Triazole 452-58-4,
2,3-Diamino-pyridine 462-08-8, 3-Amino-pyridine 480-66-0 488-87-9,
2,5-Dimethylresorcin 496-73-1 498-94-2, Piperidine-4-carboxylic acid
504-15-4 504-17-6, Thiobarbituric acid 504-24-5, 4-Amino-pyridine
504-29-0, 2-Amino-pyridine 517-22-6, 2,4-Dimethyl-3-ethylpyrrol e
533-31-3, 3,4-Methylenedioxyphenol 535-75-1, Piperidine-2-carboxylic
acid 535-87-5, 3,5-Diaminobenzoic acid 537-65-5, 4,4'-
Diaminodiphenylamine 553-86-6, Cumaranone 570-24-1,
1-Amino-2-methyl-6-nitrobenzene 578-66-5, 8-Aminoquinoline 580-17-6,
3-Aminoquinoline 580-22-3, 2-Aminoquinoline 582-17-2,
2,7-Dihydroxynaphthalene 603-81-6, 2,3-Diaminobenzoic acid 606-55-3
608-08-2, 3-Indoxylacetate 608-25-3, 2-Methylresorcin 610-74-2,
2,5-Diaminobenzoic acid 611-03-0, 2,4-Diaminobenzoic acid 611-98-3,
4,4'-Diaminobenzophenone 615-71-4, 1,2,4-Triaminobenzene 616-45-5,
Pyrrolidone 616-47-7, 1-Methylimidazole 619-05-6, 3,4-Diaminobenzoic
acid 626-64-2, 4-Hydroxypyridine 876-87-9 934-22-5,

5-Aminobenzimidazole 1004-74-6, Pyrimidinetetramine 1123-55-3,
7-Amino-benzothiazole 1125-60-6, 5-Aminoisoquinoline 1197-55-3,
4-Amino-phenylacetic acid 1344-28-1D, Alumina, salts 1571-72-8,
3-Amino-4-hydroxybenzoic acid 1953-54-4, 5-Hydroxyindole 2380-84-9,
7-Hydroxyindole 2380-86-1, 6-Hydroxyindole 2380-94-1, 4-Hydroxyindole
2654-52-6, 2,3-Dimethylbenzothiazolium-p-toluenesulfonate 2785-06-0,
2,3-Dimethylbenzothiazoliumiodide 2871-01-4, 2-Nitro-4-amino-1-(2-
hydroxyethylamino)benzene 3131-52-0, 5,6-Dihydroxyindole 3158-63-2,
1,3-Dimethylthiobarbituric acid 3167-49-5, 6-Aminonicotinic acid
3715-17-1D, Tartrate, salts, biological studies 3855-78-5,
2,3,4-Trimethylpyrrole 4318-76-7, 2,5-Diamino-pyridine 4331-29-7,
7-Aminobenzimidazole 4506-66-5, 1,2,4,5-Tetraaminobenzene-
tetrahydrochloride 4928-43-2, 2-Dimethylamino-5-amino-pyridine
4987-97-7, 3,3',4,4'-Tetraaminodiphenyl ether tetrahydrochloride
5007-67-0, 3,3',4,4'-Tetraaminobenzophenone 5131-58-8 5192-03-0,
5-Aminoindole 5192-04-1, 7-Aminoindole 5192-23-4, 4-Aminoindole
5217-47-0, 1,3-Diethylthiobarbituric acid 5307-14-2,
1,4-Diamino-2-nitrobenzene 5318-27-4, 6-Aminoindole 5345-47-1,
2-Aminonicotinic acid 5418-63-3, 1,2,3,3-Tetramethyl-3H-indoliumiodide
5434-20-8, 3-Aminophthalic acid 5718-83-2, Rhodanine-3-acetic acid
5930-28-9, 2,6-Dichloro-4-aminophenol 5959-52-4, 3-Amino-2-naphthoic
acid 6201-65-6, 1,3-Benzenediol, 2-chloro- 6259-50-3,
6-Dimethylamino-4-hydroxy-2-naphthalene sulfonic acid 6399-72-0,
6-Amino-7-hydroxynaphthalene-2-sulfonic acid 6628-04-2,
4-Aminoquinaldine 6967-12-0, 6-Aminoindazole 7336-20-1 7439-89-6D,
Iron, salts, biological studies 7439-93-2D, Lithium, salts, biological
studies 7439-95-4D, Magnesium, salts, biological studies 7439-96-5D,
Manganese, salts, biological studies 7440-09-7D, Potassium, salts,
biological studies 7440-23-5D, Sodium, salts, biological studies
7440-24-6D, Strontium, salts, biological studies 7440-39-3D, Barium,
salts, biological studies 7440-48-4D, Cobalt, salts, biological studies
7440-50-8D, Copper, salts, biological studies 7440-66-6D, Zinc, salts,
biological studies 7440-70-2D, Calcium, salts, biological studies
7749-47-5, 2-Amino-4-methoxy-6-methylpyrimidine 7768-28-7,
2-(2-Hydroxyethyl)phenol 13754-19-3, 4,5-Diamino-pyrimidine
15477-76-6D, Phosphonate, salts 16082-33-0, 3,5-Diaminopyrazole
16867-03-1, 2-Amino-3-hydroxy-pyridine 19335-11-6, 5-Aminoindazole
22715-34-0, 2-Hydroxy-4,5,6-triaminopyrimidine 23244-87-3,
2,4,5-Triamino-pyridine 23894-07-7, 3,6-Dihydroxy-2,7-naphthalene
disulfonic acid 24119-24-2, N,N-Bis[2-(4-aminophenoxy)ethyl]methylamine-
trihydrochloride 24144-00-1, 1,4-Dimethyl-quinaldinium-iodide
28020-38-4, 2,3-Diamino-6-methoxy-pyridine 29539-03-5,
5,6-Dihydroxyindoline **41927-50-8** 42952-29-4,
1-Ethyl-2-methylnaphtho[1,2-d]thiazolium-p-toluene sulfonate 50610-28-1
53666-79-8, 3-Amino-1H-pyrazol-5-ol 58480-17-4, 1,2-Dimethylnaphtho[1,2-
d]thiazolium-p-toluene sulfonate 61224-35-9 62496-02-0,
2-Methylamino-4,5,6-triamino-pyrimidine 66635-40-3, 4,4'-Diaminostilbene-
dihydrochloride 74918-21-1, 1,3-Bis(2,4-diaminophenoxy)propane-
tetrahydrochloride 83763-47-7, 2-Amino-4-(2-hydroxyethylamino)anisole
84540-47-6, 2,6-Dihydroxy-3,4-dimethylpyridine 85679-78-3,
3,5-Diamino-2,6-dimethoxy-pyridine 85926-99-4, 4-Hydroxyindoline
87814-15-1 90817-34-8, 3-Amino-2-methylamino-6-methoxy-pyridine
110952-48-2 114402-54-9, 1,3-Bis(4-aminophenylamino)propane
115423-86-4, 1,3-Diamino-2,4-dimethoxybenzene 117907-43-4 128729-30-6
130582-56-8, 1,3-Bis(4-aminophenylamino)-2-propanol 144644-13-3
159661-42-4, 2,5-Dihydroxy-4-morpholinoaniline 202525-73-3,
2,4,5-Triaminophenol-trihydrochloride 202525-74-4,
Pentaaminobenzenepentahydrochloride 202525-75-5, Hexaaminobenzene-
hexahydrochloride 202525-76-6 202525-77-7 202525-78-8,

4,6-Diaminopyrogallol-dihydrochloride 202525-79-9 220118-56-9
 223383-77-5, 4-Amino-3-hydroxynaphthalene-sulfonic acid 223398-08-1
 262853-93-0, Piperidine-3-carboxylic acid
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
 (Uses)

(hair dyeing preps. containing benzofurazan derivs.)

IT 223398-02-5P

RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL
 (Biological study); PREP (Preparation); USES (Uses)

(hair dyeing preps. containing benzofurazan derivs.)

IT 4363-93-3, Quinoline-4-carboxaldehyde 28804-47-9, Toluene sulfonic acid
 methyl ester

RL: RCT (Reactant); RACT (Reactant or reagent)

(hair dyeing preps. containing benzofurazan derivs.)

IT 92-65-9 95-54-5, o-Phenylenediamine, biological studies 95-55-6,
 2-Aminophenol 95-70-5 106-50-3, p-Phenylenediamine, biological studies
 108-45-2, m-Phenylenediamine, biological studies 123-30-8, 4-Aminophenol
 150-75-4, 4-Methylaminophenol 591-27-5, 3-Aminophenol 615-66-7,
 2-Chloro-p-phenylenediamine 623-09-6, 4-Methylaminoaniline 636-25-9,
 2,5-Diaminophenol 2835-95-2, 2-Methyl-5-aminophenol 2835-99-6,
 3-Methyl-4-aminophenol 7575-35-1, N,N-Bis(2-hydroxyethyl)-p-
 phenylenediamine 14268-66-7, 3,4-Methylenedioxyaniline 19155-86-3,
 5-Chlorobenzofurazan 20103-09-7, 2,5-Dichloro-p-phenylenediamine
 27601-00-9D, Methylquinoline, derivs. 51387-92-9 55302-96-0,
 2-Methyl-5-(2-hydroxyethylamino)phenol 61693-42-3, 3-Amino-2,4-
 dichlorophenol 70643-19-5 79352-72-0, 4-Amino-2-aminomethylphenol
 84540-50-1, 6-Methyl-3-amino-2-chlorophenol 93841-24-8,
 2-(2,5-Diaminophenyl)ethanol 94897-05-9, 4,6-Dichlorobenzofuroxan
 104333-09-7, 2-Hydroxymethyl-4-aminophenol 110102-86-8,
 2-Methyl-5-amino-4-chlorophenol 126335-41-9 137290-86-9,
 5-(2-Hydroxyethylamino)-4-methoxy-2-methylphenol 202525-71-1
 215377-52-9, 3,4-Methylenediaminoaniline 260981-02-0,
 N-(2-Methoxyethyl)-p-phenylenediamine 260981-03-1, 2,3-Dichloro-p-
 phenylenediamine

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
 (Uses)

(hair dyeing preps. containing methylquinoline derivs.)

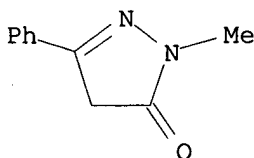
IT 41927-50-8

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
 (Uses)

(hair dyeing preps. containing benzofurazan derivs.)

RN 41927-50-8 HCAPLUS

CN 3H-Pyrazol-3-one, 2,4-dihydro-2-methyl-5-phenyl- (9CI) (CA INDEX NAME)



L11 ANSWER 11 OF 30 HCAPLUS COPYRIGHT 2005 ACS on STN
 AN 2001:115124 HCAPLUS
 DN 134:183272
 TI Quaternized azafluorenones for dyeing hair fibers
 IN Moller, Hinrich; Oberkobusch, Doris; Hoffkes, Horst

KATHLEEN FULLER EIC 1700 REMSEN 4B28 571/272-2505

PA Henkel Kommanditgesellschaft auf Aktien, Germany

SO PCT Int. Appl., 38 pp.

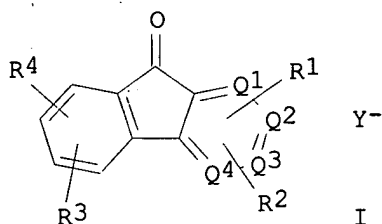
CODEN: PIXXD2

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001010840	A1	20010215	WO 2000-EP7226	20000727
	W: AU, BR, CA, CN, CZ, HU, JP, NO, PL, RU, SK, US, VN				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	DE 19937301	A1	20010215	DE 1999-19937301	19990806
	EP 1198457	A1	20020424	EP 2000-958303	20000727
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
PRAI	DE 1999-19937301	A	19990806		
	WO 2000-EP7226	W	20000727		
OS	MARPAT 134:183272				
GI					



AB Hair dyeing compns. contain quaternized azafluorenones (I, where R1, R2, R3 and R4 = e.g., H, halo, C1-4 alkyl or alkoxy group or hydroxyalkoxy, OH, NO2 NH2; Q1, Q2, Q3 and Q4, in total, represent 3 C atoms and a quaternary nitrogen atom which carries C1-4 alkyl or hydroxyalkyl or carboxyalkyl or sulfoalkyl groups, aryl, aralkyl or a heteroaryl group; and Y- = halo, C1-4 alkyl sulfate or alkanesulfonate, sulfate, or tetrafluoroborate). These compds. are suitable for dyeing fibers containing keratin, especially human hair. Thus, 1-methyl-5-oxoindeno[1,2-b]pyridinium trifluoromethanesulfonate (II) was prepared starting from 1-methyl-5-oxoindeno[1,2-b]pyridine-4-azafluoren-9-one and Me trifluoromethanesulfonate. A composition containing II and 2,4,5,6-tetraminopyrimidine sulfate gave a dark brown color to hair.

IC ICM C07D221-06

ICS A61K007-13

CC 62-3 (Essential Oils and Cosmetics)

ST quaternized azafluorenone hair dye prepn

IT Surfactants

(anionic; quaternized azafluorenones for dyeing hair fibers)

IT Amines, biological studies

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(aromatic, primary; quaternized azafluorenones for dyeing hair fibers)

IT Nitriles, biological studies

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(aromatic; quaternized azafluorenones for dyeing hair fibers)

IT Amines, biological studies
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
 (Uses)
 (aryl, secondary; quaternized azafluorenones for dyeing hair fibers)

IT Hair preparations
 (dyes; quaternized azafluorenones for dyeing hair fibers)

IT Surfactants
 (nonionic; quaternized azafluorenones for dyeing hair fibers)

IT Shampoos
 (quaternized azafluorenones for dyeing hair fibers)

IT Phenols, biological studies
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
 (Uses)
 (quaternized azafluorenones for dyeing hair fibers)

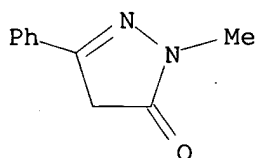
IT Surfactants
 (zwitterionic; quaternized azafluorenones for dyeing hair fibers)

IT 28020-38-4
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
 (Uses)
 (quaternized azafluorenones for dyeing hair fibers)

IT 59-48-3 62-53-3, Benzenamine, biological studies 65-49-6 67-52-7,
 2,4,6(1H,3H,5H)-Pyrimidinetrione 77-32-7 81-11-8 83-30-7 83-56-7,
 1,5-Naphthalenediol 87-02-5 87-66-1, 1,2,3-Benzenetriol 88-21-1
 89-57-6 89-86-1 90-05-1 90-15-3, 1-Naphthalenol 90-20-0 92-44-4,
 2,3-Naphthalenediol 92-65-9 95-54-5, 1,2-Benzenediamine, biological
 studies 95-55-6 95-70-5 95-88-5 98-37-3 99-05-8 99-07-0
 99-31-0 99-50-3 100-01-6, biological studies 101-77-9 101-80-4
 102-32-9 106-50-3, 1,4-Benzenediamine, biological studies 108-45-2,
 1,3-Benzenediamine, biological studies 108-46-3, 1,3-Benzenediol,
 biological studies 108-72-5, 1,3,5-Benzenetriamine 108-73-6,
 1,3,5-Benzenetriol 116-63-2 118-12-7 118-70-7, 4,5,6-
 Pyrimidinetriamine 118-92-3 119-59-5 119-70-0 120-80-9,
 1,2-Benzenediol, biological studies 121-47-1 121-57-3 123-30-8
 123-31-9, 1,4-Benzenediol, biological studies 139-65-1 141-84-4
 141-86-6, 2,6-Pyridinediamine 149-91-7, biological studies 150-13-0
 150-19-6 150-75-4 150-76-5 156-81-0, 2,4-Pyridinediamine
 288-88-0, 1H-1,2,4-Triazole 452-58-4, 2,3-Pyridinediamine 462-08-8,
 3-Pyridinamine 480-66-0 488-87-9 496-73-1 504-15-4 504-17-6
 504-24-5, 4-Pyridinamine 504-29-0, 2-Pyridinamine 517-22-6 533-31-3,
 1,3-Benzodioxol-5-ol 533-73-3, 1,2,4-Benzenetriol 535-87-5 537-65-5
 578-66-5, 8-Quinolinamine 580-17-6, 3-Quinolinamine 580-22-3,
 2-Quinolinamine 582-17-2, 2,7-Naphthalenediol 591-27-5 603-81-6
 606-55-3 608-08-2 608-25-3 610-74-2 611-03-0 611-98-3 614-82-4
 615-50-9 615-66-7 615-71-4, 1,2,4-Benzenetriamine 619-05-6
 623-09-6 636-25-9 876-87-9 934-22-5, 1H-Benzimidazol-5-amine
 1004-74-6, Pyrimidinetetramine 1004-75-7 1123-55-3,
 7-Benzothiazolamine 1123-93-9, 5-Benzothiazolamine 1125-60-6,
 5-Isoquinolinamine 1197-55-3 1571-72-8 1820-80-0, 1H-Pyrazol-3-amine
 1953-54-4, 1H-Indol-5-ol 2374-03-0 2380-84-9, 1H-Indol-7-ol
 2380-86-1, 1H-Indol-6-ol 2380-94-1, 1H-Indol-4-ol 2654-52-6
 2785-06-0 2835-95-2 2835-99-6 2871-01-4 3131-52-0,
 1H-Indole-5,6-diol 3158-63-2 3167-49-5 3342-78-7 3855-78-5
 4318-76-7, 2,5-Pyridinediamine 4331-29-7, 1H-Benzimidazol-4-amine
 4506-66-5 4928-43-2 5007-67-0 5131-58-8 5192-03-0,
 1H-Indol-5-amine 5192-04-1, 1H-Indol-7-amine 5192-23-4,
 1H-Indol-4-amine 5217-47-0 5318-27-4, 1H-Indol-6-amine 5345-47-1
 5392-28-9 5418-63-3 5434-20-8 5718-83-2 5930-28-9 5959-52-4
 6201-65-6 6259-50-3 6358-09-4 6399-72-0 6628-04-2 6967-12-0,
 1H-Indazol-6-amine 7169-34-8, 3(2H)-Benzofuranone 7336-20-1

7411-49-6 7575-35-1 7749-47-5 7768-28-7 13754-19-3,
 4,5-Pyrimidinediamine 14268-66-7, 1,3-Benzodioxol-5-amine 14338-36-4
 16082-33-0, 1H-Pyrazole-3,5-diamine 16859-86-2 16867-03-1
 19335-11-6, 1H-Indazol-5-amine 22715-34-0 23244-87-3,
 2,4,5-Pyridinetriamine 23894-07-7 24119-24-2 28491-52-3 29539-03-5
 29705-39-3 **41927-50-8** 50610-28-1 51387-92-9 53760-27-3
 54381-16-7 55302-96-0 56216-28-5 61224-35-9 61693-42-3
 62496-02-0 66635-40-3 70643-19-5 74918-21-1 79352-72-0
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 202525-75-5 202525-76-6 202525-77-7 202525-78-8 202525-79-9
 215377-52-9 220118-56-9 320728-23-2 320728-25-4 320728-27-6
 320728-29-8 325958-39-2D, salts 325958-40-5D, salts 325958-41-6D,
 salts 325958-42-7D, salts 325958-43-8D, salts 325958-44-9D, salts
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
 (Uses)

(quaternized azafluorenones for dyeing **hair** fibers)
 IT 3882-46-0, 5H-Indeno[1,2-b]pyridin-5-one
 RL: BUU (Biological use, unclassified); RCT (Reactant); BIOL (Biological
 study); RACT (Reactant or reagent); USES (Uses)
 (quaternized azafluorenones for dyeing hair fibers)
 IT 325958-45-0P
 RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL
 (Biological study); PREP (Preparation); USES (Uses)
 (quaternized azafluorenones for dyeing hair fibers)
 IT 333-27-7
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (quaternized azafluorenones for dyeing hair fibers)
 IT **41927-50-8**
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
 (Uses)
 (quaternized azafluorenones for dyeing **hair** fibers)
 RN 41927-50-8 HCAPLUS
 CN 3H-Pyrazol-3-one, 2,4-dihydro-2-methyl-5-phenyl- (9CI) (CA INDEX NAME)



RE.CNT 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 12 OF 30 HCAPLUS COPYRIGHT 2005 ACS on STN
 AN 2001:96869 HCAPLUS
 DN 134:152366
 TI Hair dye compositions containing aromatic aldehydes or ketones
 IN Moeller, Hinrich; Oberkobusch, Doris; Hoeffkes, Horst
 PA Henkel K.-G.a.A., Germany
 SO Ger. Offen., 16 pp.
 CODEN: GWXXBX
 DT Patent

KATHLEEN FULLER EIC 1700 REMSEN 4B28 571/272-2505

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 19936911	A1	20010208	DE 1999-19936911	19990805
	WO 2001013866	A1	20010301	WO 2000-EP7163	20000802
	W: AU, JP, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	EP 1200051	A1	20020502	EP 2000-963997	20000802
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY				
	JP 2003514767	T2	20030422	JP 2001-518006	20000802
	US 6770102	B1	20040803	US 2002-48208	20020503
PRAI	DE 1999-19936911	A	19990805		
	WO 2000-EP7163	W	20000802		
OS	MARPAT 134:152366				
AB	Hair dyeing compns. contain a combination of aromatic aldehydes and/or ketones with and heterocyclic compds., e.g., quinolinium salts, benzothiazolium salts, and color strengthening agents such as piperidine, pyrrolidine, and pyrazole. Thus, a mixture of 4-dimethylaminobenzaldehyde and 1-ethyl-2-methylquinolinium iodide containing piperidine at a pH of 9.0 gave a violet-red color to the hair.				
IC	ICM A61K007-13				
CC	62-3 (Essential Oils and Cosmetics)				
ST	hair dye arom aldehyde ketone; ethylmethylquinolinium iodide dimethylaminobenzaldehyde piperidine hair dye; quinolinium iodide benzaldehyde piperidine hair dye				
IT	Aldehydes, biological studies				
	Ketones, biological studies				
	RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)				
	(aromatic; hair dye compns. containing aromatic aldehydes or ketones)				
IT	Hair preparations				
	(dyes; hair dye compns. containing aromatic aldehydes or ketones)				
IT	59-48-3 67-52-7, Barbituric acid 71-00-1, Histidine, biological studies 84-65-1D, Anthraquinone, derivs. 84-83-3 100-10-7 109-00-2, 3-Pyridinol 110-85-0, Piperazidine, biological studies 110-86-1, Pyridine, biological studies 110-89-4, Piperidine, biological studies 117-92-0 120-21-8 123-75-1, Pyrrolidine, biological studies 141-84-4 142-08-5, 2(1H)-Pyridinone 147-85-3, Proline, biological studies 149-87-1 288-13-1, Pyrazole 288-32-4, Imidazole, biological studies 288-88-0, 1H-1,2,4-Triazole 487-89-8, 1H-Indole-3-carboxaldehyde 498-94-2, 4-Piperidinecarboxylic acid 498-95-3, 3-Piperidinecarboxylic acid 500-85-6D, Indophenol, derivs. 504-17-6, ThioBarbituric acid 535-75-1, 2-Piperidinecarboxylic acid 579-72-6 606-23-5, 1H-Indene-1,3(2H)-dione 606-55-3 616-45-5, Pyrrolidone 616-47-7 626-64-2, 4-Pyridinol 1199-59-3 1204-86-0 1424-66-4 1971-81-9 2124-31-4 2156-29-8 3158-63-2 3785-01-1 3785-05-5 3859-41-4, 1,3-Cyclopentanedione 3915-61-5 4181-05-9 5217-47-0 5718-83-2, Rhodanine 3-acetic acid 6203-18-5 6285-94-5 7169-34-8, Coumaranone 7570-45-8 10040-98-9 10338-57-5 14933-76-7 18241-33-3D, salts 18241-35-5D, salts 18241-36-6D, salts 18241-37-7D, salts 18241-44-6D, salts 19012-03-4 20327-08-6 23302-83-2 24235-06-1 28141-13-1 31905-57-4, Nitrophenylenediamine 33985-71-6 40265-71-2D, salts 41602-56-6 41927-50-8 42846-14-0D, salts 42846-15-1D, salts 42846-19-5D, salts 42846-38-8D, salts 42922-08-7D, salts 42952-29-4 43093-74-9, Nitroaminophenol 46149-03-5D, salts 46297-20-5D, salts 50571-73-8D,				

salts 50579-67-4D, salts 50580-50-2D, salts 51980-54-2 56405-37-9
 58028-76-5 60126-37-6D, salts 63149-01-9 63149-33-7 84562-48-1
 90134-10-4 96196-21-3 97807-64-2 194099-39-3 323575-81-1
 323575-82-2 323575-83-3 323575-84-4 323575-89-9D, halide and
 sulfonate salts

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
 (Uses)

(hair dye compns. containing aromatic aldehydes or ketones)

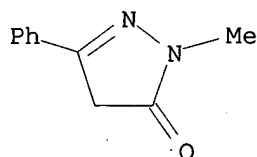
IT 41927-50-8

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
 (Uses)

(hair dye compns. containing aromatic aldehydes or ketones)

RN 41927-50-8 HCAPLUS

CN 3H-Pyrazol-3-one, 2,4-dihydro-2-methyl-5-phenyl- (9CI) (CA INDEX NAME)



L11 ANSWER 13 OF 30 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2001:93897 HCAPLUS

DN 134:168045

TI Hair dye compositions containing aromatic aldehydes or ketones

IN Moeller, Hinrich; Oberkobusch, Doris; Hoeffkes, Horst

PA Henkel K.-G.a.A., Germany

SO Ger. Offen., 14 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 19936912	A1	20010208	DE 1999-19936912	19990805
	WO 2001010398	A1	20010215	WO 2000-EP7164	20000726
	W: AU, BR, CA, CN, CZ, HU, JP, NO, PL, RU, SK, US, VN				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	EP 1200049	A1	20020502	EP 2000-956288	20000726
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY				
PRAI	DE 1999-19936912	A	19990805		
	WO 2000-EP7164	W	20000726		

OS MARPAT 134:168045

AB Hair dyeing compns. contain a combination of aromatic or heteroarom.
 aldehydes and/or ketones with and heterocyclic compds. and e.g., amino
 phenols, amines, aromatic nitriles. Thus, mixture of 1-methyl-4-[2-(4-
 formylphenyl)ethenyl]quinolinium Me sulfate and 2,5-diaminotoluene sulfate
 gave a brown-orange color to the hair.

IC ICM A61K007-13

CC 62-3 (Essential Oils and Cosmetics)

Section cross-reference(s): 27

ST hair dye arom aldehyde ketone

IT Phenols, biological studies

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(amino; hair dye compns. containing aromatic aldehydes or ketones)

IT Amines, biological studies
Nitriles, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(aromatic; hair dye compns. containing aromatic aldehydes or ketones)

IT Amines, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(aryl, secondary; hair dye compns. containing aromatic aldehydes or ketones)

IT Hair preparations
(dyes; hair dye compns. containing aromatic aldehydes or ketones)

IT Phenols, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(hair dye compns. containing aromatic aldehydes or ketones)

IT Amines, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(phenolic; hair dye compns. containing aromatic aldehydes or ketones)

IT Amines, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(primary; hair dye compns. containing aromatic aldehydes or ketones)

IT Amines, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(secondary; hair dye compns. containing aromatic aldehydes or ketones)

IT 59-48-3, Oxindole 62-53-3D, Aniline, derivs. 65-49-6, 4-Aminosalicylic
acid 67-52-7, Barbituric acid 77-32-7 81-11-8, 4,4'-Diaminostilbene-
2,2'-disulfonic acid 83-30-7, 2,4,6-Trihydroxybenzoic acid 83-56-7,
1,5-Dihydroxynaphthalene 87-02-5 87-66-1, Pyrogallol 88-21-1,
2-Aminobenzenesulfonic acid 89-57-6, 5-Aminosalicylic acid 89-86-1,
2,4-Dihydroxybenzoic acid 90-05-1, 2-Methoxyphenol 90-15-3, 1-Naphthol
90-20-0 92-44-4, 2,3-Dihydroxynaphthalene 92-65-9 95-54-5,
o-Phenylenediamine, biological studies 95-55-6, 2-Aminophenol 95-70-5,
2,5-Diaminotoluene 95-88-5 98-37-3, 3-Amino-4-hydroxybenzenesulfonic
acid 99-05-8, 3-Aminobenzoic acid 99-07-0, 3-Dimethylaminophenol
99-31-0, 5-Aminoisophthalic acid 99-50-3, 3,4-Dihydroxybenzoic acid
100-01-6, 4-Nitroaniline, biological studies 101-77-9,
4,4'-Diaminodiphenylmethane 101-80-4, 4,4'-Diaminodiphenylether
102-32-9, 3,4-Dihydroxyphenylacetic acid 106-50-3, p-Phenylenediamine,
biological studies 108-45-2, 1,3-Benzenediamine, biological studies
108-46-3, Resorcin, biological studies 108-72-5, 1,3,5-Triaminobenzene
108-73-6, Phloroglucin 116-63-2 118-12-7, 1,3,3-Trimethyl-2-
methyleneindoline 118-70-7, 4,5,6-Triaminopyrimidine 118-92-3,
2-Aminobenzoic acid 119-59-5, 4,4'-Diaminodiphenylsulfoxide 119-70-0,
4,4'-Diaminodiphenylamine-2-sulfonic acid 120-80-9, Pyrocatechol,
biological studies 121-47-1, 3-Aminobenzenesulfonic acid 121-57-3,
4-Aminobenzenesulfonic acid 123-30-8, 4-Aminophenol 123-31-9,
Hydroquinone, biological studies 139-65-1, 4,4'-Diaminodiphenylsulfide
141-84-4, Rhodanine 141-86-6, 2,6-Diaminopyridine 149-91-7, Gallic
acid, biological studies 150-13-0, 4-Aminobenzoic acid 150-19-6,
3-Methoxyphenol 150-75-4 150-76-5, 4-Methoxyphenol 156-81-0,
2,4-Diaminopyrimidine 452-58-4, 2,3-Diaminopyridine 462-08-8,
3-Aminopyridine 480-66-0 488-87-9, 2,5-Dimethylresorcin 496-73-1
504-15-4 504-17-6, Thiobarbituric acid 504-24-5, 4-Aminopyridine

504-29-0, 02-Aminopyridine 517-22-6, 2,4-Dimethyl-3-ethylpyrrole
533-31-3, 3,4-Methylenedioxyphenol 533-73-3, Hydroxyhydroquinone
535-87-5, 3,5-Diaminobenzoic acid 537-65-5, 4,4'-Diaminodiphenylamine
578-66-5, 8-Aminoquinoline 580-17-6, 3-Aminoquinoline 580-22-3,
2-Aminoquinoline 582-17-2, 2,7-Dihydroxynaphthalene 591-27-5,
3-Aminophenol 603-81-6, 2,3-Diaminobenzoic acid 606-55-3,
1-Ethylquinaldinium iodide 608-08-2, 3-Indoxylacetate 608-25-3,
2-Methylresorcin 610-74-2, 2,5-Diaminobenzoic acid 611-03-0,
2,4-Diaminobenzoic acid 611-98-3, 4,4'-Diaminobenzophenone 614-82-4,
2,4-Dihydroxyphenylacetic acid 615-50-9 615-66-7 615-71-4,
1,2,4-Triaminobenzene 619-05-6, 3,4-Diaminobenzoic acid 623-09-6
636-25-9, 2,5-Diaminophenol 876-87-9, 1-Methylquinaldinium iodide
934-22-5, 5-Aminobenzimidazole 1004-74-6, 2,4,5,6-Tetraaminopyrimidine
1004-75-7, 4-Hydroxy-2,5,6-triaminopyrimidine 1123-55-3,
7-Aminobenzothiazole 1123-93-9, 5-Aminobenzothiazole 1125-60-6,
5-Aminoisoquinoline 1197-55-3, 4-Aminophenylacetic acid 1455-77-2,
3,5-Diamino-1,2,4-triazole 1571-72-8 1820-80-0, 3-Aminopyrazole
1953-54-4, 5-Hydroxyindole 2374-03-0 2380-84-9, 7-Hydroxyindole
2380-86-1, 6-Hydroxyindole 2380-94-1, 4-Hydroxyindole 2654-52-6
2785-06-0, 2,3-Dimethylbenzothiazolium iodide 2835-95-2 2835-99-6
2871-01-4 3131-52-0, 5,6-Dihydroxyindole 3158-63-2,
1,3-Dimethylthiobarbituric acid 3167-49-5, 6-Aminonicotinic acid
3342-78-7, 2-Aminophenylacetic acid 3855-78-5, 2,3,4-Trimethylpyrrole
4318-76-7, 2,5-Diaminopyridine 4331-29-7, 7-Aminobenzimidazole
4506-66-5, 1,2,4,5-Tetraaminobenzene tetrahydrochloride 4928-43-2,
2-Dimethylamino-5-aminopyridine 5007-67-0, 3,3',4,4'-
Tetraaminobenzophenone 5131-58-8 5192-03-0, 5-Aminoindole 5192-04-1,
7-Aminoindole 5192-23-4, 4-Aminoindole 5217-47-0, 1,3-
Diethylthiobarbituric acid 5318-27-4, 6-Aminoindole 5345-47-1,
2-Aminonicotinic acid 5392-28-9 5418-63-3, 1,2,3,3-Tetramethyl-3H-
indolium iodide 5434-20-8, 3-Aminophthalic acid 5718-83-2,
Rhodanine-3-acetic acid 5930-28-9 5959-52-4 6201-65-6 6259-50-3,
6-Dimethylamino-4-hydroxy-2-naphthalenesulfonic acid 6358-09-4,
2-Amino-6-chloro-4-nitrophenol 6399-72-0 6628-04-2, 4-Aminoquinaldine
6967-12-0, 6-Aminoindazole 7169-34-8, Coumaranone 7336-20-1
7411-49-6 7575-35-1 7749-47-5, 2-Amino-4-methoxy-6-methylpyrimidine
7768-28-7 13754-19-3, 4,5-Diaminopyrimidine 14268-66-7,
1,3-Benzodioxol-5-amine 14338-36-4, 3-Aminophenylacetic acid
16082-33-0, 3,5-Diaminopyrazole 16859-86-2, 1,4-Dimethylquinolinium
iodide 16867-03-1, 2-Amino-3-hydroxypyridine 19335-11-6,
5-Aminoindazole 20103-09-7 22715-34-0, 2-Hydroxy-4,5,6-
triaminopyrimidine 23244-87-3, 2,4,5-Triaminopyridine 23894-07-7,
3,6-Dihydroxy-2,7-naphthalenedisulfonic acid 24119-24-2 28020-38-4
28491-52-3 29539-03-5, 5,6-Dihydroxyindoline 29705-39-3
41927-50-8 41946-53-6 42952-29-4, 1-Ethyl-2-methylnaphtho[1,2-
d]thiazolium p-toluenesulfonate 50610-28-1 51387-92-9 53760-27-3
54381-16-7 55302-96-0 56216-28-5 58480-17-4, 1,2-Dimethylnaphtho[1,2-
d]thiazolium p-toluenesulfonate 61224-35-9 61693-42-3 62496-02-0,
2-Methylamino-4,5,6-triaminopyrimidine 66566-48-1 66635-40-3,
4,4'-Diaminostilbene dihydrochloride 70643-19-5, 2,4-
Diaminophenoxyethanol 73264-13-8D, salts 74918-21-1 74991-01-8D,
salts 75722-39-3D, salts 77523-60-5D, salts 79352-72-0 83732-72-3
83763-47-7, 2-Amino-4-(2-hydroxyethylamino)anisole 84540-47-6,
2,6-Dihydroxy-3,4-dimethylpyridine 84540-50-1 85679-78-3 85926-99-4,
4-Hydroxyindoline 90817-34-8 93841-24-8 104333-09-7 110102-86-8
110952-48-2 114402-54-9 115423-86-4 117907-43-4 128729-30-6
130582-56-8 135043-64-0 137290-86-9 159661-42-4,
2,5-Dihydroxy-4-morpholinoaniline 169381-74-2 202525-71-1
202525-73-3, 2,4,5-Triaminophenol trihydrochloride 202525-74-4,

Pentaaminobenzene pentahydrochloride 202525-75-5, Hexaaminobenzene hexahydrochloride 202525-76-6 202525-78-8, 4,6-Diaminopyrogallol dihydrochloride 215377-52-9 324757-53-1D, salts 324757-55-3D, salts 324757-56-4D, salts 324757-57-5D, salts 324757-58-6D, salts 324757-59-7D, salts 324757-60-0D, salts 324757-63-3 324757-64-4 324757-66-6

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(hair dye compns. containing aromatic aldehydes or ketones)

IT 89868-58-6P 89868-60-0P

RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(hair dye compns. containing aromatic aldehydes or ketones)

IT 108-89-4, γ -Picoline 623-27-8, 1,4-Benzenedicarboxaldehyde

RL: RCT (Reactant); RACT (Reactant or reagent)

(hair dye compns. containing aromatic aldehydes or ketones)

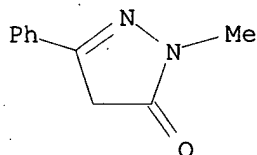
IT 41927-50-8

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(hair dye compns. containing aromatic aldehydes or ketones)

RN 41927-50-8 HCAPLUS

CN 3H-Pyrazol-3-one, 2,4-dihydro-2-methyl-5-phenyl- (9CI) (CA INDEX NAME)



L11 ANSWER 14 OF 30 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2001:50451 HCAPLUS

DN 134:120589

TI Hair dyes containing at least one aromatic nitroso compound

IN Moller, Hinrich; Hoffkes, Horst; Oberkobusch, Doris

PA Henkel Kommanditgesellschaft auf Aktien, Germany

SO PCT Int. Appl., 34 pp.

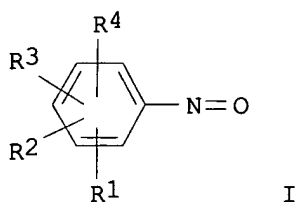
CODEN: PIXXD2

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001003661	A1	20010118	WO 2000-EP6219	20000704
	W: AU, JP, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	DE 19932566	A1	20010118	DE 1999-19932566	19990713
PRAI	DE 1999-19932566	A	19990713		
OS	MARPAT 134:120589				
GI					



AB The invention relates to an agent for dyeing keratin fibers, especially human hair, containing at least 1 aromatic nitroso compound (I, e.g., R1, R2, R3 and

R4 =

H or halo, Cl-4 alkyl or alkoxy, OH, sulfo group, CO₂H or substituted amino group). Thus, the hair was dyed greenish-yellow after treatment with 2-methylresorcinol and N,N-dimethyl-4-nitrosoresorcinol.

IC ICM A61K007-13

CC 62-4 (Essential Oils and **Cosmetics**)

ST arom nitroso compd hair dye

IT Phenols, biological studies

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(amino; hair dyes containing aromatic nitroso compds.)

IT Surfactants

(anionic; hair dyes containing aromatic nitroso compds.)

IT Nitriles, biological studies

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(aromatic; hair dyes containing aromatic nitroso compds.)

IT Hair preparations

(dyes, oxidative; hair dyes containing aromatic nitroso compds.)

IT Hair preparations

(dyes; hair dyes containing aromatic nitroso compds.)

IT Shampoos

(hair dyes containing aromatic nitroso compds.)

IT Phenols, biological studies

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(hair dyes containing aromatic nitroso compds.)

IT Phenols, biological studies

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(naphthols; hair dyes containing aromatic nitroso compds.)

IT Aromatic compounds

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(nitroso; hair dyes containing aromatic nitroso compds.)

IT Surfactants

(nonionic; hair dyes containing aromatic nitroso compds.)

IT Amines, biological studies

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(phenolic; hair dyes containing aromatic nitroso compds.)

IT Surfactants

(zwitterionic; hair dyes containing aromatic nitroso compds.)

IT 59-48-3 62-53-3, Benzenamine, biological studies 65-49-6 67-52-7,
2,4,6(1H,3H,5H)-Pyrimidinetrione 69-72-7, biological studies 71-00-1,
L-Histidine, biological studies 77-32-7 83-30-7 83-56-7,

1,5-Naphthalenediol 87-02-5 87-66-1, 1,2,3-Benzenetriol 88-21-1
89-57-6 89-86-1 90-15-3, 1-Naphthalenol 90-20-0 92-44-4,
2,3-Naphthalenediol 94-53-1, 1,3-Benzodioxole-5-carboxylic acid
95-54-5, 1,2-Benzenediamine, biological studies 95-55-6 95-70-5
95-88-5 98-37-3 99-05-8 99-07-0 99-31-0 99-50-3 99-64-9
100-01-6, biological studies 100-09-4 101-77-9 101-80-4 104-91-6
106-50-3, 1,4-Benzenediamine, biological studies 108-45-2,
1,3-Benzenediamine, biological studies 108-46-3, 1,3-Benzenediol,
biological studies 108-72-5, 1,3,5-Benzenetriamine 108-73-6,
1,3,5-Benzenetriol 109-00-2, 3-Pyridinol 110-85-0, Piperazine,
biological studies 110-86-1, Pyridine, biological studies 118-12-7
118-70-7, 4,5,6-Pyrimidinetriamine 118-92-3 119-59-5 119-70-0
120-80-9, 1,2-Benzenediol, biological studies 121-47-1 121-57-3
123-30-8 123-31-9, 1,4-Benzenediol, biological studies 123-75-1,
Pyrrolidine, biological studies 131-91-9 132-53-6 138-89-6
139-65-1 141-84-4 141-86-6, 2,6-Pyridinediamine 142-08-5,
2(1H)-Pyridinone 147-85-3, L-Proline, biological studies 149-87-1
149-91-7, biological studies 150-13-0 150-19-6 150-75-4 156-10-5
156-81-0, 2,4-Pyrimidinediamine 288-13-1, 1H-Pyrazole 288-32-4,
1H-Imidazole, biological studies 288-88-0, 1H-1,2,4-Triazole 452-58-4,
2,3-Pyridinediamine 462-08-8, 3-Pyridinamine 480-66-0 488-87-9
496-73-1 498-94-2, 4-Piperidinecarboxylic acid 498-95-3,
3-Piperidinecarboxylic acid 504-15-4 504-17-6 504-24-5,
4-Pyridinamine 504-29-0, 2-Pyridinamine 517-22-6 525-05-3
533-31-3, 1,3-Benzodioxol-5-ol 533-73-3, 1,2,4-Benzenetriol 535-75-1,
2-Piperidinecarboxylic acid 535-87-5 537-65-5 553-86-6,
2(3H)-Benzofuranone 578-66-5, 8-Quinolinamine 579-75-9 580-17-6,
3-Quinolinamine 580-22-3, 2-Quinolinamine 582-17-2,
2,7-Naphthalenediol 586-38-9 591-27-5 603-81-6 605-59-4 606-55-3
608-08-2 608-25-3 610-74-2 611-03-0 611-98-3 615-66-7
615-71-4, 1,2,4-Benzenetriamine 616-45-5, 2-Pyrrolidinone 616-47-7
619-05-6 623-09-6 626-64-2, 4-Pyridinol 636-25-9 876-87-9
934-22-5, 1H-Benzimidazol-5-amine 1004-74-6, Pyrimidinetetramine
1004-75-7 1125-60-6, 5-Isoquinolinamine 1197-55-3 1455-77-2,
1H-1,2,4-Triazole-3,5-diamine 1571-72-8 1820-80-0, 1H-Pyrazol-3-amine
1953-54-4, 1H-Indol-5-ol 2374-03-0 2380-84-9, 1H-Indol-7-ol
2380-86-1, 1H-Indol-6-ol 2380-94-1, 1H-Indol-4-ol 2654-52-6
2785-06-0 2835-95-2 2835-99-6 2871-01-4 3119-93-5 3131-52-0,
1H-Indole-5,6-diol 3158-63-2 3167-49-5 3342-78-7 3565-26-2
3682-32-4 3855-78-5 4318-76-7, 2,5-Pyridinediamine 4331-29-7,
1H-Benzimidazol-4-amine 4506-66-5 4928-43-2 5007-67-0 5131-58-8
5192-03-0, 1H-Indol-5-amine 5192-04-1, 1H-Indol-7-amine 5192-23-4,
1H-Indol-4-amine 5217-47-0 5318-27-4, 1H-Indol-6-amine 5345-47-1
5418-63-3 5434-20-8 5718-83-2 5930-28-9 5959-52-4 6201-65-6
6259-50-3 6358-09-4 6399-72-0 6628-04-2 6967-12-0,
1H-Indazol-6-amine 7336-20-1 7411-49-6 7575-35-1 7749-47-5
13754-19-3, 4,5-Pyrimidinediamine 14268-66-7, 1,3-Benzodioxol-5-amine
14338-36-4 14933-76-7 16082-33-0, 1H-Pyrazole-3,5-diamine 16859-86-2
16867-03-1 19335-11-6, 1H-Indazol-5-amine 22715-34-0 23894-07-7
24119-24-2 28020-38-4 29539-03-5 29705-39-3 41317-10-6
41927-50-8 50610-28-1 51387-92-9 53666-79-8 54381-16-7, Ro
371 55302-96-0 56216-28-5 61224-35-9 61693-42-3 62496-02-0
66635-40-3 70643-19-5 79352-72-0 80419-48-3 83763-47-7
84540-47-6 84540-50-1 85679-78-3 85926-99-4 90817-34-8
93841-24-8 104333-09-7 110102-86-8 110952-48-2 114402-54-9
115423-86-4 126335-41-9 128729-30-6 130582-56-8 137290-86-9
144644-13-3 159661-42-4 202525-71-1 202525-73-3 202525-74-4
202525-75-5 202525-76-6 202525-77-7 202525-78-8 202525-79-9
215377-52-9 220118-56-9 320728-23-2 320728-25-4 320728-27-6

320728-29-8 320729-29-1 320730-08-3 320734-47-2 320734-48-3,
2,3,5-Pyridinetriamine
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)

(hair dyes containing aromatic nitroso compds.)

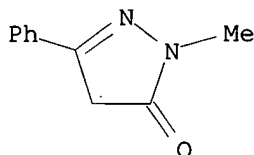
IT 41927-50-8

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)

(hair dyes containing aromatic nitroso compds.)

RN 41927-50-8 HCAPLUS

CN 3H-Pyrazol-3-one, 2,4-dihydro-2-methyl-5-phenyl- (9CI) (CA INDEX NAME)



RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 15 OF 30 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2001:50450 HCAPLUS

DN 134:120571

TI Hair dye compositions containing N-vinylisatins

IN Rose, David

PA Henkel Kommanditgesellschaft auf Aktien, Germany

SO PCT Int. Appl., 34 pp.

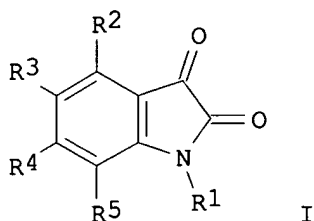
CODEN: PIXXD2

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001003660	A1	20010118	WO 2000-EP6218	20000704
	W: AU, BR, CA, CN, CZ, HU, JP, NO, PL, RU, SK, US, VN				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	DE 19932567	A1	20010118	DE 1999-19932567	19990713
	EP 1194116	A1	20020410	EP 2000-943979	20000704
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
PRAI	DE 1999-19932567	A	19990713		
	WO 2000-EP6218	W	20000704		
OS	MARPAT 134:120571				
GI					



AB The invention relates to an agent for dyeing fibers containing keratin, especially human hair, containing at least 1 N-vinyl isatin (I, e.g., R1 = vinyl, or substituted by 1 or 2 C1-4 alkyl groups and R2, R3, R4 and R5 = H, OH, halo, NO2, sulfo, CO2H, C1-4-alkyl or alkoxy groups). Thus, hair treated with N-vinylisatins and 2-aminomethyl-4-aminophenol turned orange.

IC ICM A61K007-13

CC 62-3 (Essential Oils and **Cosmetics**)

ST hair dye vinylisatin phenol; isatin vinyl phenol hair dye

IT Phenols, biological studies
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
 (amino; hair dye compns. containing N-vinylisatins)

IT Surfactants
 (anionic; hair dye compns. containing N-vinylisatins)

IT Nitriles, biological studies
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
 (aromatic; hair dye compns. containing N-vinylisatins)

IT Hair preparations
 (dyes, oxidative; hair dye compns. containing N-vinylisatins)

IT Hair preparations
 (dyes; hair dye compns. containing N-vinylisatins)

IT Shampoos
 (hair dye compns. containing N-vinylisatins)

IT Phenols, biological studies
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
 (hair dye compns. containing N-vinylisatins)

IT Surfactants
 (nonionic; hair dye compns. containing N-vinylisatins)

IT Amines, biological studies
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
 (phenolic; hair dye compns. containing N-vinylisatins)

IT Surfactants
 (zwitterionic; hair dye compns. containing N-vinylisatins)

IT 59-48-3 62-53-3, Benzenamine, biological studies 65-49-6 67-52-7, 2,4,6(1H,3H,5H)-Pyrimidinetrione 77-32-7 83-30-7 83-56-7, 1,5-Naphthalenediol 87-02-5 87-66-1, 1,2,3-Benzenetriol 88-21-1 89-57-6 89-86-1 90-15-3, 1-Naphthalenol 90-20-0 92-44-4, 2,3-Naphthalenediol 93-05-0 94-53-1, 1,3-Benzodioxole-5-carboxylic acid 95-54-5, 1,2-Benzenediamine, biological studies 95-55-6 95-70-5 95-88-5 98-37-3 99-05-8 99-31-0 99-50-3 99-64-9 100-01-6, biological studies 100-09-4 101-77-9 101-80-4 106-50-3, 1,4-Benzenediamine, biological studies 108-45-2, 1,3-Benzenediamine, biological studies 108-46-3, 1,3-Benzenediol, biological studies

108-72-5, 1,3,5-Benzenetriamine 108-73-6, 1,3,5-Benzenetriol 118-12-7
118-70-7, 4,5,6-Pyrimidinetriamine 118-92-3 119-59-5 119-70-0
120-80-9, 1,2-Benzenediol, biological studies 121-47-1 121-57-3
123-30-8 123-31-9, 1,4-Benzenediol, biological studies 139-65-1
141-84-4 141-86-6, 2,6-Pyridinediamine 149-91-7, biological studies
150-13-0 150-19-6 150-75-4 156-81-0, 2,4-Pyrimidinediamine
452-58-4, 2,3-Pyridinediamine 462-08-8, 3-Pyridinamine 480-66-0
488-87-9 496-73-1 504-15-4 504-17-6 504-24-5, 4-Pyridinamine
504-29-0, 2-Pyridinamine 517-22-6 533-31-3, 1,3-Benzodioxol-5-ol
533-73-3, 1,2,4-Benzenetriol 535-87-5 537-65-5 553-86-6,
2(3H)-Benzofuranone 578-66-5, 8-Quinolinamine 579-75-9 580-17-6,
3-Quinolinamine 580-22-3, 2-Quinolinamine 582-17-2,
2,7-Naphthalenediol 586-38-9 591-27-5 603-81-6 606-55-3 608-08-2
608-25-3 610-74-2 611-03-0 611-98-3 615-66-7 615-71-4,
1,2,4-Benzenetriamine 619-05-6 623-09-6 636-25-9 876-87-9
934-22-5, 1H-Benzimidazol-5-amine 1004-74-6, Pyrimidinetetramine
1004-75-7 1125-60-6, 5-Isoquinolinamine 1197-55-3 1455-77-2,
1H-1,2,4-Triazole-3,5-diamine 1571-72-8 1820-80-0, 1H-Pyrazol-3-amine
1953-54-4, 1H-Indol-5-ol 2374-03-0 2380-84-9, 1H-Indol-7-ol
2380-86-1, 1H-Indol-6-ol 2380-94-1, 1H-Indol-4-ol 2592-14-5
2654-52-6 2785-06-0 2835-95-2 2835-99-6 2871-01-4 3131-52-0,
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1H-Indol-4-amine 5217-47-0 5318-27-4, 1H-Indol-6-amine 5345-47-1
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1H-Indazol-6-amine 7336-20-1 7411-49-6 7575-35-1 7749-47-5
13754-19-3, 4,5-Pyrimidinediamine 14268-66-7, 1,3-Benzodioxol-5-amine
14338-36-4 16082-33-0, 1H-Pyrazole-3,5-diamine 16859-86-2 16867-03-1
19335-11-6, 1H-Indazol-5-amine 22715-34-0 23244-87-3,
2,4,5-Pyridinetriamine 23894-07-7 24119-24-2 28020-38-4 29539-03-5
29705-39-3 **41927-50-8** 50610-28-1 51387-92-9 53666-79-8
55302-96-0 61224-35-9 61693-42-3 62496-02-0 66635-40-3
69564-74-5D, derivs. 70643-19-5 79352-72-0 83763-47-7 84540-47-6
84540-50-1 85679-78-3 85926-99-4 90817-34-8 93841-24-8
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117907-43-4 126335-41-9 128729-30-6 130582-56-8 137290-86-9
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202525-74-4 202525-75-5 202525-76-6 202525-77-7 202525-78-8
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320728-27-6 320728-29-8 320729-29-1 320730-08-3

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)

(hair dye compns. containing N-vinylisatins)

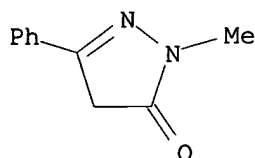
IT **41927-50-8**

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)

(hair dye compns. containing N-vinylisatins)

RN 41927-50-8 HCAPLUS

CN 3H-Pyrazol-3-one, 2,4-dihydro-2-methyl-5-phenyl- (9CI) (CA INDEX NAME)



RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 16 OF 30 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2001:50442 HCAPLUS

DN 134:105616

TI Hair dyeing preparations containing p-benzoquinone chloroimine derivatives

IN Moller, Hinrich; Hoffkes, Horst; Oberkobusch, Doris

PA Henkel Kommanditgesellschaft auf Aktien, Germany

SO PCT Int. Appl., 26 pp.

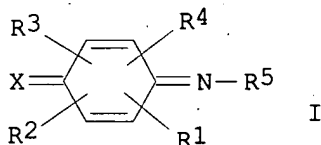
CODEN: PIXXD2

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001003651	A2	20010118	WO 2000-EP6220	20000704
	WO 2001003651	A3	20010712		
	W: AU, JP, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	DE 19932565	A1	20010118	DE 1999-19932565	19990713
	EP 1194117	A2	20020410	EP 2000-947919	20000704
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
PRAI	DE 1999-19932565	A	19990713		
	WO 2000-EP6220	W	20000704		
OS	MARPAT 134:105616				
GI					



AB The invention relates to an agent for dyeing fibers containing keratin, especially

human hairs, containing N-halogen imines of formula (I), wherein R1, R2, R3 and R4 represent a hydrogen atom, a halogen atom, a C1-C4-alkyl group and a C1-C4-alkoxy group. Two of the radicals can also form a fused aromatic or heteroarom. ring together. X represents oxygen or an aryl imine and R5 represents fluorine, chlorine, bromine or iodine. The dye is combined with at least one addnl. dye for dyeing hair. Thus p-benzoquinone chloroimine was used in various hair compns.; by selecting the second dye and the pH hair colors were varied, e.g. using 2-methylresorcine ant pH 6, dark brown color was obtained.

IC ICM A61K007-00
 CC 62-3 (Essential Oils and **Cosmetics**)
 ST hair dye benzoquinone chloroimine deriv
 IT Hair preparations
 (dyes; hair dyeing preps. containing p-benzoquinone chloroimine derivs.)
 IT Color
 Hair
 Oxidizing agents
 pH
 (hair dyeing preps. containing p-benzoquinone chloroimine derivs.)
 IT Halides
 Keratins
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
 (Uses)
 (hair dyeing preps. containing p-benzoquinone chloroimine derivs.)
 IT 50-21-5, Lactic acid, biological studies 59-48-3, Oxindol 65-49-6,
 4-Aminosalicyclic acid 67-52-7, Barbituric acid 71-47-6, Formate,
 biological studies 71-50-1, Acetate, biological studies 72-03-7,
 Propionate, biological studies 77-92-9, Citric acid, biological studies
 79-14-1, Glycolic acid, biological studies 83-30-7, 2,4,6-
 Trihydroxybenzoic acid 83-56-7, 1,5-Dihydroxynaphthalene 87-02-5,
 7-Amino-4-hydroxynaphthalene-2-sulfonic acid 87-66-1, Pyrogallol
 88-21-1, 2-Aminobenzene sulfonic acid 89-57-6, 5-Aminosalicyclic acid
 89-86-1, 2,4-Dihydroxybenzoic acid 90-05-1, 2-Methoxy phenol 90-20-0,
 4-Amino-5-hydroxynaphthalene-2,7-disulfonic acid 92-44-4,
 2,3-Dihydroxynaphthalene 92-65-9 95-54-5, o-Phenylenediamine,
 biological studies 95-55-6, 2-Aminophenol 95-70-5, 2,5-Diaminotoluene
 95-88-5, 4-Chlororesorcin 98-37-3, 3-Amino-4-hydroxybenzene sulfonic
 acid 99-05-8, 3-Aminobenzoic acid 99-07-0, 3-Dimethylaminophenol
 99-31-0, 5-Aminoisophthalic acid 99-50-3, 3,4-Dihydroxybenzoic acid
 100-01-6, 4-Nitroaniline, biological studies 101-38-2,
 2,5-Cyclohexadien-1-one, 2,6-dichloro-4-(chloroimino)- 101-77-9,
 4,4'-Diaminodiphenylmethane 101-80-4, 4,4'-Diaminodiphenylether
 102-32-9, 3,4-Dihydroxy-phenylacetic acid 106-50-3, p-Phenylenediamine,
 biological studies 108-45-2, m-Phenylenediamine, biological studies
 108-46-3, Resorcin, biological studies 108-72-5, 1,3,5-Triaminobenzene
 108-73-6, Phloroglucin 108-99-6, 3-Methylpyridine 109-06-8,
 2-Methylpyridine 118-12-7, 1,3,3-Trimethyl-2-methyleneindoline
 118-70-7, 4,5,6-Triaminopyrimidine 118-92-3, 2-Aminobenzoic acid
 119-70-0, 4,4'-Diaminodiphenylamine-2-sulfonic acid 120-80-9,
 Pyrocatechol, biological studies 121-47-1, 3-Aminobenzene sulfonic acid
 121-57-3, 4-Aminobenzene sulfonic acid 123-30-8, 4-Aminophenol
 123-31-9, Hydroquinone, biological studies 141-84-4, Rhodanine
 142-62-1, Hexanoic acid, biological studies 149-91-7, Gallic acid,
 biological studies 150-13-0, 4-Aminobenzoic acid 150-19-6,
 3-Methoxyphenol 150-75-4, 4-Methylaminophenol 150-76-5,
 4-Methoxyphenol 461-55-2, Butyrate, biological studies 488-87-9,
 2,5-Dimethylresorcin 496-73-1, 1,3-Benzenediol, 4-methyl- 504-15-4
 504-17-6, Thiobarbituric acid 517-22-6, 2,4-Dimethyl-3-ethylpyrrole
 533-31-3, 3,4-Methylenedioxyphenol 533-73-3, Hydroxyhydroquinone
 535-87-5, 3,5-Diaminobenzoic acid 537-45-1, 2,6-Dibromo-1,4-benzoquinone-
 4-chlorimide 553-86-6, Cumaranone 578-66-5, 8-Aminoquinoline
 580-17-6, 3-Aminoquinoline 580-22-3, 2-Aminoquinoline 582-17-2,
 2,7-Dihydroxynaphthalene 591-27-5, 3-Aminophenol 603-81-6,
 2,3-Diaminobenzoic acid 606-55-3 608-08-2, 3-Indoxylacetate
 608-25-3, 2-Methylresorcin 608-59-3, Gluconate 610-74-2,
 2,5-Diaminobenzoic acid 611-03-0, 2,4-Diaminobenzoic acid 611-98-3,
 4,4'-Diaminobenzophenone 615-66-7, 2-Chloro-p-phenylenediamine
 615-71-4, 1,2,4-Triaminobenzene 619-05-6, 3,4-Diaminobenzoic acid

623-09-6, 4-Methylaminoaniline 636-25-9, 2,5-Diaminophenol 637-61-6,
2,5-Cyclohexadien-1-one, 4-(chloroimino)- 876-87-9 934-22-5,
5-Aminobenzimidazole 1004-74-6, 2,4,5,6-Tetraaminopyrimidine
1004-75-7, 4-Hydroxy-2,5,6-triaminopyrimidine 1123-55-3,
7-Aminobenzothiazole 1125-60-6, 5-Aminoisoquinoline 1197-55-3,
4-Aminophenylacetic acid 1571-72-8, 3-Amino-4-hydroxybenzoic acid
1791-73-7, 2,4-Diamino-6-methylpyrimidine 1820-80-0, 3-Aminopyrazole
1953-54-4, 5-Hydroxyindole 2374-03-0, 4-Amino-3-hydroxybenzoic acid
2380-84-9, 7-Hydroxyindole 2380-86-1, 6-Hydroxyindole 2380-94-1,
4-Hydroxyindole 2654-52-6, 2,3-Dimethylbenzothiazolium-p-
toluenesulfonate 2785-06-0, 2,3-Dimethylbenzothiazoliumiodide
2835-95-2, 2-Methyl-5-aminophenol 2835-99-6, 3-Methyl-4-aminophenol
2871-01-4, 2-Nitro-4-amino-1-(2-hydroxyethylamino)benzene 3131-52-0,
5,6-Dihydroxyindole 3158-63-2, 1,3-Dimethylthiobarbituric acid
3167-49-5, 6-Aminonicotinic acid 3169-15-1 3342-78-7,
2-Aminophenylacetic acid 3715-17-1, Tartrate, biological studies
3731-53-1, 4-Aminomethylpyridine 3812-32-6, Carbonate, biological
studies 3855-78-5, 2,3,4-Trimethylpyrrole 4331-29-7,
7-Aminobenzimidazole 4506-66-5, 1,2,4,5-Tetraaminobenzene-
tetrahydrochloride 4928-43-2, 2-Dimethylamino-5-aminopyridine
4987-97-7, 3,3',4,4'-Tetraaminodiphenyl ether tetrahydrochloride
5007-67-0, 3,3',4,4'-Tetraaminobenzophenone 5131-58-8 5192-03-0,
5-Aminoindole 5192-04-1, 7-Aminoindole 5192-23-4, 4-Aminoindole
5217-47-0, 1,3-Diethylthiobarbituric acid 5318-27-4, 6-Aminoindole
5345-47-1, 2-Aminonicotinic acid 5418-63-3, 1,2,3,3-Tetramethyl-3H-
indoliumiodide 5434-20-8, 3-Aminophthalic acid 5718-83-2,
Rhodamine-3-acetic acid 5930-28-9, 2,6-Dichloro-4-aminophenol
5959-52-4, 3-Amino-2-naphthoic acid 6201-65-6, 1,3-Benzenediol,
2-chloro- 6259-50-3, 6-Dimethylamino-4-hydroxy-2-naphthalene sulfonic
acid 6358-09-4, 2-Amino-6-chloro-4-nitrophenol 6399-72-0,
6-Amino-7-hydroxy-2-naphthalenesulfonic acid 6628-04-2,
4-Aminoquinaldine 6967-12-0, 6-Aminoindazole 7336-20-1 7429-90-5D,
Aluminum, salts, biological studies 7439-89-6D, Iron, salts, biological
studies 7439-93-2D, Lithium, salts, biological studies 7439-95-4D,
Magnesium, salts, biological studies 7439-96-5D, Manganese, salts,
biological studies 7440-09-7D, Potassium, salts, biological studies
7440-23-5D, Sodium, salts, biological studies 7440-24-6D, Strontium,
salts, biological studies 7440-48-4D, Cobalt, salts, biological studies
7440-50-8D, Copper, salts, biological studies 7440-66-6D, Zinc, salts,
biological studies 7440-70-2D, Calcium, salts, biological studies
7575-35-1, N,N-Bis(2-hydroxyethyl)p-phenylenediamine 7722-84-1, Hydrogen
peroxide, biological studies 7749-47-5, 2-Amino-4-methoxy-6-
methylpyrimidine 7768-28-7, 2-(2-Hydroxyethyl) phenol 10023-74-2,
Valerate, biological studies 14265-44-2, Phosphate, biological studies
14268-66-7, 3,4-Methylenedioxylaniline 14338-36-4, 3-Aminophenylacetic
acid 14808-79-8, Sulfate, biological studies 15477-76-6, Phosphonate
16082-33-0, 3,5-Diaminopyrazole 16859-86-2, 1,4-Dimethylquinolinium-
iodide 19335-11-6, 5-Aminoindazole 20103-09-7, 2,5-Dichloro-p-
phenylenediamine 22715-28-2 22715-34-0, 2-Hydroxy-4,5,6-
triaminopyrimidine 23244-87-3, 2,4,5-Triaminopyridine 23612-57-9,
2-Amino-3-hydroxymethylpyridine 24119-24-2, N,N-Bis[2-(4-
aminophenoxy)ethyl]methylamine-trihydrochloride 28020-38-4,
2,3-Diamino-6-methoxypyridine 29539-03-5, 5,6-Dihydroxyindoline
31905-57-4, Nitrophenylenediamine 34572-45-7, 2-Nitro-1-amino-4-[bis(2-
hydroxyethyl)amino]benzene 34984-16-2, 2,6-Diaminomethylpyridine
41927-50-8 43093-74-9, Nitroaminophenol 50610-28-1
51387-92-9 53666-79-8 55302-96-0, 2-Methyl-5-(2-
hydroxyethylamino)phenol 61224-35-9 61693-42-3, 3-Amino-2,4-
dichlorophenol 62496-02-0, 2-Methylamino-4,5,6-triaminopyrimidine

66635-40-3, 4,4'-Diaminostilbene-dihydrochloride 70643-19-5,
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 3,5-Diamino-2,6-dimethoxypyridine 85926-99-4, 4-Hydroxyindoline
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 6-methoxypyridine 93841-24-8, 2-(2,5-Diaminophenyl)ethanol
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 132589-61-8, 1H-Indol-2-ol, 2,3-dihydro- 137290-86-9,
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 159661-42-4, 2,5-Dihydroxy-4-morpholinoaniline 202525-71-1
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 hexahydrochloride 202525-76-6, 1,3-Benzenediol-, 2,4,6-triamino-
 ,trihydrochloride 202525-77-7 202525-78-8, 4,6-Diaminopyrogallol-
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 2,3-Dichloro-p-phenylenediamine
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
 (Uses)

(hair dyeing preps. containing p-benzoquinone chloroimine
 derivs.)

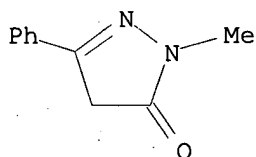
IT 41927-50-8

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
 (Uses)

(hair dyeing preps. containing p-benzoquinone chloroimine
 derivs.)

RN 41927-50-8 HCAPLUS

CN 3H-Pyrazol-3-one, 2,4-dihydro-2-methyl-5-phenyl- (9CI) (CA INDEX NAME)



L11 ANSWER 17 OF 30 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2001:45037 HCAPLUS

DN 134:120569

TI Hair dyeing preparations containing heterocyclic aldehydes or ketones

IN Moeller, Hinrich; Oberkobusch, Doris; Hoeffkes, Horst

PA Henkel K.-G.a.a., Germany

SO Ger. Offen., 12 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

PATENT NO.

KIND

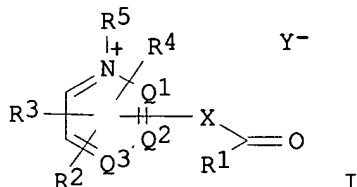
DATE

APPLICATION NO.

DATE

KATHLEEN FULLER EIC 1700 REMSEN 4B28 571/272-2505

PI	DE 19933187	A1	20010118	DE 1999-19933187	19990715
	WO 2001005359	A2	20010125	WO 2000-EP6399	20000706
	WO 2001005359	A3	20010426		
	W: AU, JP, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
PRAI	DE 1999-19933187	A	19990715		
OS	MARPAT 134:120569				
GI					



AB The invention concerns compns. for dyeing keratin fibers, especially hair, that contain at least one heterocyclic aldehyde or ketone of the formula (I) and a compound from the group of aromatic amines, hydroxyls, including heterocycles, and compds. with active CH groups. In I R1 = H, C1-C4 alkyl, aryl, heteroaryl; R2, R3, R4 = H, C1-C4 alkyl, hydroxyalkyl, carboxyalkyl, sulfoalkyl, aryl, aralkyl, heteroaryl; Q1, Q2, Q3 = combination of two C and one N, the N can be quaternized; X = vinylene or vinylene derivative; Y = halide, benzene sulfonate, p-toluene sulfonate, methane sulfonate, tetrachlorozincate, nitrogen oxide, oxide. Thus 2-formyl-1-methylquinoxalinium-trifluoromethanesulfonate was synthesized from quinoxaline-2-carboxaldehyde and trifluoromethanesulfonic acid Me ester. The product was used in hair dyeing compns.; depending on the selected other dye(s), different colors were obtained; e.g the combination with 2-methyl-3-amino-6-methoxypyridine dihydrochloride resulted redish brown hair color.

IC ICM A61K007-13

CC 62-3 (Essential Oils and **Cosmetics**)

ST hair dye heterocyclic aldehyde ketone

IT Hair preparations
(dyes; hair dyeing preps. containing heterocyclic aldehydes or ketones)

IT Color
Hair
Oxidizing agents
pH
(hair dyeing preps. containing heterocyclic aldehydes or ketones)

IT Aldehydes, biological studies
Halides
Keratins
Ketones, biological studies
Perchlorates
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(hair dyeing preps. containing heterocyclic aldehydes or ketones)

IT 50-21-5, Lactic acid, biological studies 59-48-3, Oxindol 65-49-6, 4-Aminosalicylic acid 67-52-7, Barbituric acid 71-47-6, Formate, biological studies 71-50-1, Acetate, biological studies 72-03-7, Propionate, biological studies 75-75-2, Methanesulfonic acid 77-92-9,

Citric acid, biological studies 79-14-1, Glycolic acid, biological studies 83-30-7, 2,4,6-Trihydroxybenzoic acid 83-56-7, 1,5-Dihydroxynaphthalene 87-02-5, 7-Amino-4-hydroxynaphthalene-2-sulfonic acid 87-66-1, Pyrogallol 88-21-1, 2-Aminobenzene sulfonic acid 89-57-6, 5-Aminosalicylic acid 89-86-1, 2,4-Dihydroxybenzoic acid 90-05-1, 2-Methoxyphenol 90-20-0, 4-Amino-5-hydroxynaphthalene-2,7-disulfonic acid 92-44-4, 2,3-Dihydroxynaphthalene 95-54-5, o-Phenylenediamine, biological studies 95-55-6, 2-Aminophenol 95-70-5, 2,5-Diaminotoluene 95-88-5, 4-Chlororesorcin 98-37-3, 3-Amino-4-hydroxybenzene sulfonic acid 99-05-8, 3-Aminobenzoic acid 99-07-0, 3-Dimethylaminophenol 99-31-0, 5-Aminoisophthalic acid 99-50-3, 3,4-Dihydroxybenzoic acid 100-01-6, 4-Nitroaniline, biological studies 101-77-9, 4,4'-Diaminodiphenylmethane 101-80-4, 4,4'-Diaminodiphenylether 102-32-9, 3,4-Dihydroxy-phenylacetic acid 104-15-4, biological studies 106-50-3, p-Phenylenediamine, biological studies 108-45-2, m-Phenylenediamine, biological studies 108-46-3, Resorcin, biological studies 108-72-5, 1,3,5-Triaminobenzene 108-73-6, Phloroglucin 108-99-6, 3-Methylpyridine 109-06-8, 2-Methylpyridine 118-12-7, 1,3,3-Trimethyl-2-methyleneindoline 118-70-7, 4,5,6-Triaminopyrimidine 118-92-3, 2-Aminobenzoic acid 119-70-0, 4,4'-Diaminodiphenylamine-2-sulfonic acid 121-47-1, 3-Aminobenzene sulfonic acid 121-57-3, 4-Aminobenzene sulfonic acid 123-30-8, 4-Aminophenol 123-31-9, Hydroquinone, biological studies 141-84-4, Rhodanine 142-62-1, Hexanoic acid, biological studies 149-91-7, Gallic acid, biological studies 150-13-0, 4-Aminobenzoic acid 150-19-6, 3-Methoxyphenol 150-75-4, 4-Methylaminophenol 150-76-5, 4-Methoxyphenol 461-55-2, Butyrate, biological studies 488-87-9, 2,5-Dimethylresorcin 496-73-1, 1,3-Benzenediol, 4-methyl- 504-15-4 504-17-6, Thiobarbituric acid 517-22-6, 2,4-Dimethyl-3-ethylpyrrole 533-31-3, 3,4-Methylenedioxyphenol 533-73-3, Hydroxyhydroquinone 535-87-5, 3,5-Diaminobenzoic acid 553-86-6, Cumaranone 578-66-5, 8-Aminoquinoline 580-17-6, 3-Aminoquinoline 580-22-3, 2-Aminoquinoline 582-17-2, 2,7-Dihydroxynaphthalene 591-27-5, 3-Aminophenol 603-81-6, 2,3-Diaminobenzoic acid 606-55-3 608-08-2, 3-Indoxylacetate 608-59-3, Gluconate 610-74-2, 2,5-Diaminobenzoic acid 611-03-0, 2,4-Diaminobenzoic acid 611-98-3, 4,4'-Diaminobenzophenone 615-66-7, 2-Chloro-p-phenylenediamine 615-71-4, 1,2,4-Triaminobenzene 619-05-6, 3,4-Diaminobenzoic acid 623-09-6, 4-Methylaminoaniline 636-25-9, 2,5-Diaminophenol 876-87-9 934-22-5, 5-Aminobenzimidazole 1004-74-6, 2,4,5,6-Tetraaminopyrimidine 1004-75-7, 4-Hydroxy-2,5,6-triaminopyrimidine 1123-55-3, 7-Aminobenzothiazole 1125-60-6, 5-Aminoisoquinoline 1197-55-3, 4-Aminophenylacetic acid 1571-72-8, 3-Amino-4-hydroxybenzoic acid 1791-73-7, 2,4-Diamino-6-methylpyrimidine 1820-80-0, 3-Aminopyrazole 1953-54-4, 5-Hydroxyindole 2380-84-9, 7-Hydroxyindole 2380-86-1, 6-Hydroxyindole 2380-94-1, 4-Hydroxyindole 2654-52-6, 2,3-Dimethylbenzothiazolium-p-toluenesulfonate 2785-06-0, 2,3-Dimethylbenzothiazoliumiodide 2835-95-2, 2-Methyl-5-aminophenol 2835-99-6, 3-Methyl-4-aminophenol 2871-01-4, 2-Nitro-4-amino-1-(2-hydroxyethylamino)benzene 3131-52-0, 5,6-Dihydroxyindole 3158-63-2, 1,3-Dimethylthiobarbituric acid 3167-49-5, 6-Aminonicotinic acid 3198-32-1, Benzenesulfonate, biological studies 3342-78-7, 2-Aminophenylacetic acid 3715-17-1, Tartrate, biological studies 3731-53-1, 4-Aminomethylpyridine 3812-32-6, Carbonate, biological studies 3855-78-5, 2,3,4-Trimethylpyrrole 4331-29-7, 7-Aminobenzimidazole 4506-66-5, 1,2,4,5-Tetraaminobenzene-tetrahydrochloride 4928-43-2, 2-Dimethylamino-5-aminopyridine 4987-97-7, 3,3',4,4'-Tetraaminodiphenyl ether tetrahydrochloride 5007-67-0, 3,3',4,4'-Tetraaminobenzophenone 5131-58-8 5192-03-0, 5-Aminoindole 5192-04-1, 7-Aminoindole 5192-23-4, 4-Aminoindole

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Rhodanine-3-acetic acid 5930-28-9, 2,6-Dichloro-4-aminophenol
5959-52-4, 3-Amino-2-naphthoic acid 6201-65-6, 1,3-Benzenediol,
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Aluminum, salts, biological studies 7439-89-6D, Iron, salts, biological
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Valerate, biological studies 13297-17-1, 2-Acetyl-3-methylquinoxaline-
1,4-dioxide 14265-44-2, Phosphate, biological studies 14268-66-7,
3,4-Methylenedioxyaniline 14338-36-4, 3-Aminophenylacetic acid
14808-79-8, Sulfate, biological studies 15477-76-6, Phosphonate
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iodide 19335-11-6, 5-Aminoindazole 20103-09-7, 2,5-Dichloro-p-
phenylenediamine 22715-28-2 22715-34-0, 2-Hydroxy-4,5,6-
triaminopyrimidine 23244-87-3, 2,4,5-Triaminopyridine 23612-57-9,
2-Amino-3-hydroxymethylpyridine 24119-24-2, N,N-Bis[2-(4-
aminophenoxy)ethyl]methylamine-trihydrochloride 28020-38-4,
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hydroxyethyl)amino]benzene 34984-16-2, 2,6-Diaminomethylpyridine
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hydroxyethylamino)anisole 84540-47-6, 2,6-Dihydroxy-3,4-dimethylpyridine
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3,5-Diamino-2,6-dimethoxypyridine 85926-99-4, 4-Hydroxyindoline
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6-methoxypyridine 93841-24-8, 2-(2,5-Diaminophenyl)ethanol
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132589-61-8, 1H-Indol-2-ol, 2,3-dihydro- 137290-86-9,
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159519-79-6, Brenzcatechin 159661-42-4, 2,5-Dihydroxy-4-
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trihydrochloride 202525-74-4, Pentaaminobenzene-pentahydrochloride
202525-75-5, Hexaaminobenzene-hexahydrochloride 202525-76-6,
1,3-Benzenediol-, 2,4,6-triamino-, trihydrochloride 202525-77-7
202525-78-8, 4,6-Diaminopyrogallol-dihydrochloride 202525-79-9

215377-52-9, 3,4-Methylene-diaminoaniline 220118-56-9 223383-77-5,
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 N-(2-Methoxyethyl)-p-phenylenediamine 260981-03-1, 2,3-Dichloro-p-
 phenylenediamine 320577-63-7 320577-64-8D, salts 320577-66-0D, salts
 320577-67-1D, salts 320577-68-2D, salts 320577-69-3D, salts
 320577-70-6D, salts 320577-71-7D, salts 320577-72-8D, salts
 320577-73-9D, salts 320577-74-0D, salts 320577-75-1D, salts
 320577-76-2D, salts 320577-77-3 320577-78-4D, salts 320577-79-5D,
 salts 320577-80-8D, salts

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
 (Uses)

(hair dyeing preps. containing heterocyclic aldehydes or
 ketones)

IT 320577-81-9D, salts 320577-82-0D, salts 320577-83-1D, salts
 320577-84-2D, salts 320577-85-3D, salts 320577-86-4D, salts
 320577-87-5D, salts

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
 (Uses)

(hair dyeing preps. containing heterocyclic aldehydes or ketones)

IT 320577-65-9P

RL: BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL
 (Biological study); PREP (Preparation); USES (Uses)

(hair dyeing preps. containing heterocyclic aldehydes or ketones)

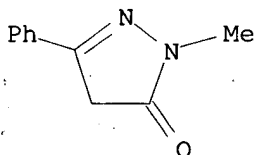
IT 41927-50-8

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
 (Uses)

(hair dyeing preps. containing heterocyclic aldehydes or
 ketones)

RN 41927-50-8 HCAPLUS

CN 3H-Pyrazol-3-one, 2,4-dihydro-2-methyl-5-phenyl- (9CI) (CA INDEX NAME)



L11 ANSWER 18 OF 30 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2000:880595 HCAPLUS

DN 134:46626

TI Hair dye compositions containing xanthenes

IN Moeller, Hinrich; Meinigke, Bernd

PA Henkel K.-G.a.A., Germany

SO Ger. Offen., 14 pp.

CODEN: GWXXBX

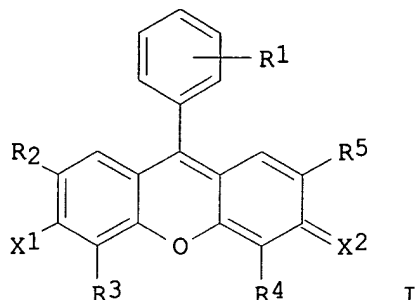
DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 19926377	A1	20001214	DE 1999-19926377	19990610
	WO 2000076466	A1	20001221	WO 2000-EP5044	20000602
	W: AU, BR, CA, CN, CZ, HU, JP, NO, PL, RU, SK, US, VN				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				

PRAI DE 1999-19926377 A 19990610
OS MARPAT 134:46626
GI



- AB A hair dye composition comprises a xanthene derivative (I, R1 = e.g., H, C1-4 carboxyl or a sulfone; R2, R3, R4, and R5 = H, C1-4 alkyl, C1-4 alkoxy or OH; when X2 = O, then X1 = OH). Addnl. the compns. contains compds. with amino, aminocarboxylate or amino hydroxy groups, N heterocycles, etc. A formulation containing pyrogallol red, 2,5-diaminotoluene sulfate (1:1) and a surfactant dyed the hair fibers medium brown.
- IC ICM C09B011-28
ICS A61K007-13
- CC 62-3 (Essential Oils and **Cosmetics**)
Section cross-reference(s): 41
- ST xanthene hair dye oxidative; amino phenol xanthene hair dye
- IT Phenols, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(amino; hair dye compns. containing xanthenes)
- IT Surfactants
(anionic; hair dye compns. containing xanthenes)
- IT Nitriles, biological studies
Nitro compounds
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(aromatic; hair dye compns. containing xanthenes)
- IT Hair preparations
(dyes, oxidative; hair dye compns. containing xanthenes)
- IT Hair preparations
(dyes; hair dye compns. containing xanthenes)
- IT Amino acids, biological studies
Phenols, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(hair dye compns. containing xanthenes)
- IT Aromatic compounds
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(nitro; hair dye compns. containing xanthenes)
- IT Surfactants
(nonionic; hair dye compns. containing xanthenes)
- IT Peptides, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(oligopeptides; hair dye compns. containing xanthenes)

IT Amines, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(phenolic; hair dye compns. containing xanthenes)

IT Amines, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(primary; hair dye compns. containing xanthenes)

IT Amines, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(secondary; hair dye compns. containing xanthenes)

IT Surfactants
(zwitterionic; hair dye compns. containing xanthenes)

IT 59-48-3 62-53-3, Benzenamine, biological studies 62-53-3D, Aniline, derivs. 65-49-6 67-52-7, 2,4,6(1H,3H,5H)-Pyrimidinetrione 81-11-8 81-88-9, Rhodamine B 83-30-7 83-56-7, 1,5-Naphthalenediol 84-65-1D, Anthraquinone, derivs. 87-02-5 87-66-1, 1,2,3-Benzenetriol 88-21-1 89-57-6 89-86-1 90-05-1 90-15-3, 1-Naphthalenol 90-20-0 92-44-4, 2,3-Naphthalenediol 92-65-9 92-83-1D, Xanthene, derivs. 95-54-5, 1,2-Benzenediamine, biological studies 95-55-6 95-70-5 95-88-5 98-37-3 98-86-2, biological studies 99-05-8 99-07-0 99-31-0 99-50-3 100-01-6, biological studies 101-77-9 101-80-4 102-32-9 106-50-3, 1,4-Benzenediamine, biological studies 108-45-2, 1,3-Benzenediamine, biological studies 108-46-3, 1,3-Benzenediol, biological studies 108-72-5, 1,3,5-Benzenetriamine 108-73-6, 1,3,5-Benzenetriol 116-63-2 118-12-7 118-70-7, 4,5,6-Pyrimidinetriamine 118-92-3 119-59-5 119-70-0 120-80-9, 1,2-Benzenediol, biological studies 121-47-1 121-57-3 123-30-8 123-31-9, 1,4-Benzenediol, biological studies 139-65-1 141-84-4 141-86-6, 2,6-Pyridinediamine 149-91-7, biological studies 150-13-0 150-19-6 150-75-4 150-76-5 156-81-0, 2,4-Pyrimidinediamine 288-88-0, 1H-1,2,4-Triazole 452-58-4, 2,3-Pyridinediamine 462-08-8, 3-Pyridinamine 488-87-9 496-73-1 500-85-6D, Indophenol, derivs. 504-15-4 504-17-6 504-24-5, 4-Pyridinamine 504-29-0, 2-Pyridinamine 517-22-6 533-31-3, 1,3-Benzodioxol-5-ol 533-73-3, 1,2,4-Benzenetriol 535-87-5 537-65-5 553-86-6, 2(3H)-Benzofuranone 578-66-5, 8-Quinolinamine 580-17-6, 3-Quinolinamine 580-22-3, 2-Quinolinamine 582-17-2, 2,7-Naphthalenediol 591-27-5 603-81-6 606-55-3 608-08-2 608-25-3 610-74-2 611-03-0 611-98-3 614-82-4 615-50-9 615-66-7 615-71-4, 1,2,4-Benzenetriamine 619-05-6 623-09-6 636-25-9 876-87-9 934-22-5, 1H-Benzimidazol-5-amine 975-17-7 989-38-8, Rhodamine 6G 1004-74-6, Pyrimidinotetramine 1004-75-7 1123-55-3, 7-Benzothiazolamine 1123-93-9, 5-Benzothiazolamine 1125-60-6, 5-Isoquinolinamine 1197-55-3 1571-72-8 1820-80-0, 1H-Pyrazol-3-amine 1953-54-4, 1H-Indol-5-ol 2321-07-5, Fluorescein 2374-03-0 2380-84-9, 1H-Indol-7-ol 2380-86-1, 1H-Indol-6-ol 2380-94-1, 1H-Indol-4-ol 2654-52-6 2785-06-0 2835-95-2 2835-99-6 2871-01-4 3131-52-0, 1H-Indole-5,6-diol 3158-63-2 3167-49-5 3342-78-7 3855-78-5 4318-76-7, 2,5-Pyridinediamine 4331-29-7, 1H-Benzimidazol-4-amine 4506-66-5 4928-43-2 5007-67-0 5131-58-8 5192-03-0, 1H-Indol-5-amine 5192-04-1, 1H-Indol-7-amine 5192-23-4, 1H-Indol-4-amine 5217-47-0 5318-27-4, 1H-Indol-6-amine 5345-47-1 5392-28-9 5418-63-3 5434-20-8 5718-83-2 5959-52-4 6201-65-6 6259-50-3 6358-09-4 6399-72-0 6492-79-1 6628-04-2 6967-12-0, 1H-Indazol-6-amine 7336-20-1 7411-49-6 7575-35-1 7749-47-5 7768-28-7 13558-31-1, Rhodamine 110 13754-19-3, 4,5-Pyrimidinediamine 14268-66-7, 1,3-Benzodioxol-5-amine 14338-36-4 16082-33-0,

1H-Pyrazole-3,5-diamine 16859-86-2 16867-03-1 19335-11-6,
 1H-Indazol-5-amine 20103-09-7 22715-34-0 23244-87-3,
 2,4,5-Pyridinetriamine 23894-07-7 24119-24-2 25265-76-3D,
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 Pyrogallol red **41927-50-8** 41946-53-6 50610-28-1 53666-79-8
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RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
 (Uses)

(hair dye compns. containing xanthenes)

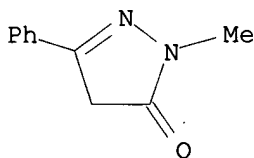
IT **41927-50-8**

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
 (Uses)

(hair dye compns. containing xanthenes)

RN 41927-50-8 HCAPLUS

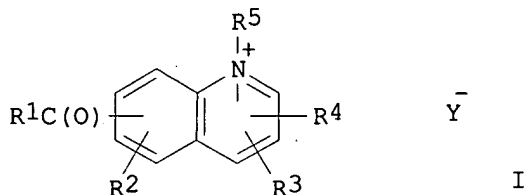
CN 3H-Pyrazol-3-one, 2,4-dihydro-2-methyl-5-phenyl- (9CI) (CA INDEX NAME)



L11 ANSWER 19 OF 30 HCAPLUS COPYRIGHT 2005 ACS on STN
 AN 2000:442115 HCAPLUS
 DN 133:79001
 TI Quinolinium aldehydes and ketones for coloring keratin-containing fibers
 IN Moeller, Hinrich; Oberkobusch, Doris; Hoeffkes, Horst
 PA Henkel K.-G.a.A., Germany
 SO Ger. Offen., 13 pp.
 CODEN: GWXXBX
 DT Patent
 LA German
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 19859750	A1	20000629	DE 1998-19859750	19981223
	WO 2000038633	A1	20000706	WO 1999-EP9908	19991214
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ES 2184516	T3	20030401	ES 1999-963526	19991214
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WO 1999-EP9908	W	19991214		
OS MARPAT 133:79001				
GI				



AB Keratin fibers, especially human hair, are dyed yellow, orange, or brown with a quinolinium aldehyde or ketone [I; R1 = H, C1-4 alkyl, aryl, heteroaryl; R2-R4 = H, halo, alkyl, alkoxy, hydroxyalkoxy, OH, NO2, (substituted) amino, C1-4 acyl; or any 2 residues of R2-R4 may complete a condensed benzene ring; R5 = C1-4 alkyl or alkenyl, aryl, aralkyl, heteroaryl; Y- = halide, benzenesulfonate, BF4-, p-toluenesulfonate, methanesulfonate, trifluoromethanesulfonate, ClO4-, SO42-, HSO4-, ZnCl42-, N-heterocycle N-oxide]. For a greater range of colors, I are combined with ≥ 1 primary or secondary aliphatic or aromatic amine or alc., N heterocycle, amino acid, oligopeptide, aromatic OH compound, or CH-active compound. These combinations can be used with or without the addition of oxidizing agents to produce colors of exceptional brilliance and depth. Thus, a solution

containing

7-formyl-1-methylquinolinium trifluoromethanesulfonate 5,
2,5-diaminotoluene sulfate 5, NaOAc 5 mmol, and 1 drop of 20% fatty alkyl
ether sulfate in 50 mL H2O (pH 6) was applied to gray hair for 30 min at
30° to produce a dark orange-brown color.

IC ICM A61K007-13

CC 62-3 (Essential Oils and **Cosmetics**)

ST hair dye quinolinium aldehyde amine; alc quinolinium ketone hair dye

IT Amines, biological studies

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)

(aliphatic; quinolinium aldehydes and ketones for coloring

keratin-containing

fibers)

IT Amines, biological studies

Nitriles, biological studies

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)

(aromatic; quinolinium aldehydes and ketones for coloring keratin-containing
fibers)

IT Hydroxy compounds

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)

(aryl; quinolinium aldehydes and ketones for coloring keratin-containing
fibers)

IT Hair preparations

(dyes; quinolinium aldehydes and ketones for coloring keratin-containing
fibers)

IT Heterocyclic compounds

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES

(Uses)
(nitrogen; quinolinium aldehydes and ketones for coloring
keratin-containing fibers)

IT Amines, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(primary; quinolinium aldehydes and ketones for coloring keratin-containing
fibers)

IT Amino acids, biological studies
Peptides, biological studies
Phenols, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(quinolinium aldehydes and ketones for coloring keratin-containing fibers)

IT Amines, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(secondary; quinolinium aldehydes and ketones for coloring
keratin-containing fibers)

IT 59-48-3, Oxindole 62-53-3D, Aniline, derivs. 65-49-6, 4-Aminosalicylic
acid 67-52-7, Barbituric acid 83-30-7, 2,4,6-Trihydroxybenzoic acid
83-56-7, 1,5-Dihydroxynaphthalene 87-02-5, 7-Amino-4-hydroxynaphthalene-
2-sulfonic acid 87-66-1, Pyrogallol 88-21-1, 2-Aminobenzenesulfonic
acid 89-57-6, 5-Aminosalicylic acid 89-86-1, 2,4-Dihydroxybenzoic acid
90-05-1, 2-Methoxyphenol 90-15-3, 1-Naphthol 90-20-0,
4-Amino-5-hydroxynaphthalene-2,7-disulfonic acid 91-22-5D, Quinoline,
quaternary salts, derivs., biological studies 92-44-4,
2,3-Dihydroxynaphthalene 92-65-9 95-54-5, o-Phenylenediamine,
biological studies 95-55-6, 2-Aminophenol 95-70-5, 2,5-Diaminotoluene
95-88-5, 4-Chlororesorcinol 98-37-3, 3-Amino-4-hydroxybenzenesulfonic
acid 99-05-8, 3-Aminobenzoic acid 99-07-0, 3-Dimethylaminophenol
99-31-0, 5-Aminoisophthalic acid 99-50-3, 3,4-Dihydroxybenzoic acid
100-01-6, 4-Nitroaniline, biological studies 101-77-9,
4,4'-Diaminodiphenylmethane 101-80-4, 4,4'-Diaminodiphenyl ether
102-32-9, 3,4-Dihydroxyphenylacetic acid 106-50-3, p-Phenylenediamine,
biological studies 108-45-2, m-Phenylenediamine, biological studies
108-46-3, Resorcinol, biological studies 108-72-5, 1,3,5-Triaminobenzene
108-73-6, Phloroglucinol 118-12-7, 1,3,3-Trimethyl-2-methyleneindoline
118-70-7, 4,5,6-Triaminopyrimidine 118-92-3, 2-Aminobenzoic acid
119-59-5, 4,4'-Diaminodiphenyl sulfoxide 119-70-0, 4,4'-
Diaminodiphenylamine-2-sulfonic acid 120-80-9, Pyrocatechol, biological
studies 121-47-1, 3-Aminobenzenesulfonic acid 121-57-3,
4-Aminobenzenesulfonic acid 123-30-8, 4-Aminophenol 123-31-9,
Hydroquinone, biological studies 139-65-1, 4,4'-Diaminodiphenyl sulfide
141-84-4, Rhodanine 141-86-6, 2,6-Diaminopyridine 149-91-7, Gallic
acid, biological studies 150-13-0, 4-Aminobenzoic acid 150-19-6,
3-Methoxyphenol 150-75-4, 4-Methylaminophenol 150-76-5,
4-Methoxyphenol 156-81-0, 2,4-Diaminopyrimidine 452-58-4,
2,3-Diaminopyridine 462-08-8, 3-Aminopyridine 480-66-0 488-87-9,
2,5-Dimethylresorcinol 496-73-1, 4-Methylresorcinol 504-15-4,
5-Methylresorcinol 504-17-6, Thiobarbituric acid 504-24-5,
4-Aminopyridine 504-29-0, 2-Aminopyridine 517-22-6,
2,4-Dimethyl-3-ethylpyrrole 533-31-3, 3,4-Methylenedioxyphenol
533-73-3, Hydroxyhydroquinone 535-87-5, 3,5-Diaminobenzoic acid
537-65-5, 4,4'-Diaminodiphenylamine 578-66-5, 8-Aminoquinoline
580-17-6, 3-Aminoquinoline 580-22-3, 2-Aminoquinoline 582-17-2,
2,7-Dihydroxynaphthalene 591-27-5, 3-Aminophenol 603-81-6,
2,3-Diaminobenzoic acid 606-55-3 608-08-2, 3-Indoxyl acetate
608-25-3, 2-Methylresorcinol 610-74-2, 2,5-Diaminobenzoic acid

611-03-0, 2,4-Diaminobenzoic acid 611-98-3, 4,4'-Diaminobenzophenone
615-50-9 615-66-7, 2-Chloro-p-phenylenediamine 615-71-4,
1,2,4-Triaminobenzene 619-05-6, 3,4-Diaminobenzoic acid 623-09-6,
4-Methylaminoaniline 636-25-9, 2,5-Diaminophenol 876-87-9 934-22-5,
5-Aminobenzimidazole 1004-74-6, 2,4,5,6-Tetraaminopyrimidine
1004-75-7, 4-Hydroxy-2,5,6-triaminopyrimidine 1123-55-3,
7-Aminobenzothiazole 1125-60-6, 5-Aminoisoquinoline 1197-55-3,
4-Aminophenylacetic acid 1455-77-2, 3,5-Diamino-1,2,4-triazole
1571-72-8, 3-Amino-4-hydroxybenzoic acid 1820-80-0, 3-Aminopyrazole
1953-54-4, 5-Hydroxyindole 2374-03-0, 4-Amino-3-hydroxybenzoic acid
2380-84-9, 7-Hydroxyindole 2380-86-1, 6-Hydroxyindole 2380-94-1,
4-Hydroxyindole 2654-52-6, 2,3-Dimethylbenzothiazolium
p-toluenesulfonate 2785-06-0, 2,3-Dimethylbenzothiazolium iodide
2835-95-2, 2-Methyl-5-aminophenol 2835-99-6, 3-Methyl-4-aminophenol
2871-01-4, 2-Nitro-4-amino-1-(2-hydroxyethylamino)benzene 3131-52-0,
5,6-Dihydroxyindole 3158-63-2, 1,3-Dimethylthiobarbituric acid
3167-49-5, 6-Aminonicotinic acid 3855-78-5, 2,3,4-Trimethylpyrrole
4318-76-7, 2,5-Diaminopyridine 4331-29-7, 7-Aminobenzimidazole
4506-66-5, 1,2,4,5-Tetraaminobenzene tetrahydrochloride 4928-43-2,
2-Dimethylamino-5-aminopyridine 5007-67-0, 3,3',4,4'-
Tetraaminobenzophenone 5131-58-8 5192-03-0, 5-Aminoindole 5192-04-1,
7-Aminoindole 5192-23-4, 4-Aminoindole 5217-47-0, 1,3-
Diethylthiobarbituric acid 5318-27-4, 6-Aminoindole 5345-47-1,
2-Aminonicotinic acid 5418-63-3, 1,2,3,3-Tetramethyl-3H-indolium iodide
5434-20-8, 3-Aminophthalic acid 5718-83-2, Rhodanine-3-acetic acid
5959-52-4, 3-Amino-2-naphthoic acid 6201-65-6, 2-Chlororesorcinol
6259-50-3, 6-Dimethylamino-4-hydroxy-2-naphthalenesulfonic acid
6358-09-4 6399-72-0, 6-Amino-7-hydroxynaphthalene-2-sulfonic acid
6628-04-2, 4-Aminoquinaldine 6967-12-0, 6-Aminoindazole 7169-34-8,
Coumaranone 7336-20-1 7411-49-6 7575-35-1, N,N-Bis(2-hydroxyethyl)-p-
phenylenediamine 7749-47-5, 2-Amino-4-methoxy-6-methylpyrimidine
7768-28-7, 2-(2-Hydroxyethyl)phenol 13754-19-3, 4,5-Diaminopyrimidine
14268-66-7, 3,4-Methylenedioxylaniline 16082-33-0, 3,5-Diaminopyrazole
16867-03-1, 2-Amino-3-hydroxypyridine 19335-11-6, 5-Aminoindazole
20103-09-7, 2,5-Dichloro-p-phenylenediamine 22715-34-0,
2-Hydroxy-4,5,6-triaminopyrimidine 23244-87-3, 2,4,5-Triaminopyridine
23894-07-7, 3,6-Dihydroxy-2,7-naphthalenedisulfonic acid 24119-24-2,
N,N-Bis[2-(4-aminophenoxy)ethyl]methylamine trihydrochloride 28020-38-4,
2,3-Diamino-6-methoxypyridine 29539-03-5, 5,6-Dihydroxyindoline
34572-45-7, 2-Nitro-1-amino-4-[bis(2-hydroxyethyl)amino]benzene
41927-50-8 46791-37-1D, salts 50610-28-1 53666-79-8
55302-96-0, 2-Methyl-5-(2-hydroxyethylamino)phenol 56216-28-5,
3,5-Diamino-2,6-dimethoxypyridine dihydrochloride 60320-10-7
61224-35-9 61693-42-3, 3-Amino-2,4-dichlorophenol 62496-02-0,
2-Methylamino-4,5,6-triaminopyrimidine 66635-40-3, 4,4'-Diaminostilbene
dihydrochloride 70643-19-5 74918-21-1, 1,3-Bis(2,4-
diaminophenoxy)propane tetrahydrochloride 79352-72-0,
4-Amino-2-aminomethylphenol 83732-72-3, 2-Methylamino-3-amino-6-
methoxypyridine dihydrochloride 83763-48-8 84540-47-6,
2,6-Dihydroxy-3,4-dimethylpyridine 84540-50-1, 6-Methyl-3-amino-2-
chlorophenol 85679-78-3, 3,5-Diamino-2,6-dimethoxypyridine 85926-99-4,
4-Hydroxyindoline 90817-34-8, 3-Amino-2-methylamino-6-methoxypyridine
93841-24-8, 2-(2,5-Diaminophenyl)ethanol 93841-25-9 104333-09-7,
4-Amino-2-hydroxymethylphenol 110102-86-8, 2-Methyl-5-amino-4-
chlorophenol 114402-54-9, 1,3-Bis(4-aminophenylamino)propane
115423-86-4, 1,3-Diamino-2,4-dimethoxybenzene 117907-43-4,
4-Amino-2-nitrodiphenylamine-2'-carboxylic acid 126335-41-9,
2,5-Diaminophenetole 128729-30-6 130582-56-8, 1,3-Bis(4-
aminophenylamino)-2-propanol 135043-64-0, 2-Aminomethyl-4-aminophenol

dihydrochloride 137290-86-9, 5-(2-Hydroxyethylamino)-4-methoxy-2-methylphenol 144644-13-3 159661-42-4, 2,5-Dihydroxy-4-morpholinoaniline 177080-42-1, 2-Amino-4-(2-hydroxyethylamino)phenol 202525-71-1 202525-73-3, 2,4,5-Triaminophenol trihydrochloride 202525-76-6, 2,4,6-Triaminoresorcinol trihydrochloride 202525-77-7 202525-78-8, 4,6-Diaminopyrogallol dihydrochloride 202525-79-9 215377-52-9, 3,4-Methylenediaminoaniline 220118-56-9 223383-77-5, 4-Amino-3-hydroxynaphthalenesulfonic acid 260981-02-0, N-(2-Methoxyethyl)-p-phenylenediamine 260981-03-1, 2,3-Dichloro-p-phenylenediamine 278807-62-8D, salts 278807-63-9D, salts 278807-64-0D, salts 278807-65-1D, salts 278807-66-2D, salts 278807-67-3D, salts 278807-68-4D, salts 278807-69-5D, salts 278807-70-8D, salts 278807-71-9D, salts 278807-72-0D, salts 278807-73-1D, salts 278807-74-2D, salts 278807-75-3D, salts 278807-76-4D, salts 278807-77-5D, salts 278807-78-6D, salts 278807-79-7D, salts 278807-80-0D, salts 278807-81-1D, salts
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(quinolinium aldehydes and ketones for coloring **keratin** -containing fibers)

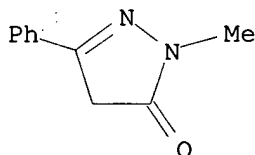
IT 41927-50-8

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(quinolinium aldehydes and ketones for coloring **keratin** -containing fibers)

RN 41927-50-8 HCAPLUS

CN 3H-Pyrazol-3-one, 2,4-dihydro-2-methyl-5-phenyl- (9CI) (CA INDEX NAME)



L11 ANSWER 20 OF 30 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2000:442109 HCAPLUS

DN 133:79000

TI Nitroisatins for coloring keratin-containing fibers

IN Moeller, Hinrich; Oberkobusch, Doris; Hoeffkes, Horst

PA Henkel K.-G.a.A., Germany

SO Ger. Offen., 13 pp.

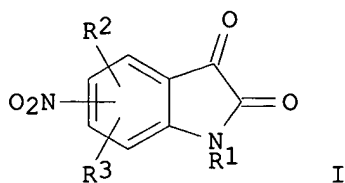
CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 19859723	A1	20000629	DE 1998-19859723	19981223
	WO 2000038636	A1	20000706	WO 1999-EP9998	19991216
	W: AU, JP, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
PRAI	DE 1998-19859723	A	19981223		
OS	MARPAT 133:79000				
GI					



- AB Keratin fibers, especially human hair, are dyed with a combination of (a) a nitroisatin [I; R1 = H, alkyl, alkenyl, alkoxy, hydroxyalkyl, (substituted) aminoalkyl, (substituted) arylalkyl; R2, R3 = H, halo, alkyl, alkenyl, alkoxy, hydroxyalkyl, OH, CO2H, SO3H, NO2, (substituted) amino, acyl; or any 2 residues of R1-R3 may complete a condensed aromatic ring] with (b) ≥ 1 primary or secondary aliphatic or aromatic amine or alc., N heterocycle, amino acid, oligopeptide, aromatic OH compound, or CH-active compound. These combinations can be used with or without the addition of oxidizing agents to produce colors of exceptional brilliance and depth. Thus, a solution containing 5-nitroisatin 5, 2,5-diaminotoluene sulfate 5, NaOAc 5 mmol, and 1 drop of 20% fatty alkyl ether sulfate in 50 mL H2O (pH 6) was applied to gray hair for 30 min at 30° to produce a violet-black color.
- IC ICM A61K007-13
- CC 62-3 (Essential Oils and **Cosmetics**)
- ST hair dye nitroisatin nucleophile; amine nitroisatin hair dye; alc nitroisatin hair dye
- IT Amines, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(aliphatic; nitroisatins for coloring keratin-containing fibers)
- IT Amines, biological studies
Nitriles, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(aromatic; nitroisatins for coloring keratin-containing fibers)
- IT Hydroxy compounds
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(aryl; nitroisatins for coloring keratin-containing fibers)
- IT Hair preparations
(dyes; nitroisatins for coloring keratin-containing fibers)
- IT Heterocyclic compounds
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(nitrogen; nitroisatins for coloring keratin-containing fibers)
- IT Amino acids, biological studies
Peptides, biological studies
Phenols, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(nitroisatins for coloring keratin-containing fibers)
- IT Amines, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(primary; nitroisatins for coloring keratin-containing fibers)

IT Amines, biological studies

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(secondary; nitroisatins for coloring keratin-containing fibers)

IT 59-48-3, Oxindole 62-53-3D, Aniline, derivs. 65-49-6, 4-Aminosalicylic acid 67-52-7, Barbituric acid 83-30-7, 2,4,6-Trihydroxybenzoic acid 83-56-7, 1,5-Dihydroxynaphthalene 87-02-5, 7-Amino-4-hydroxynaphthalene-2-sulfonic acid 87-66-1, Pyrogallol 88-21-1, 2-Aminobenzenesulfonic acid 89-57-6, 5-Aminosalicylic acid 89-86-1, 2,4-Dihydroxybenzoic acid 90-05-1, 2-Methoxyphenol 90-15-3, 1-Naphthol 90-20-0, 4-Amino-5-hydroxynaphthalene-2,7-disulfonic acid 92-44-4, 2,3-Dihydroxynaphthalene 92-65-9 95-54-5, o-Phenylenediamine, biological studies 95-55-6, 2-Aminophenol 95-70-5, 2,5-Diaminotoluene 95-88-5, 4-Chlororesorcinol 98-37-3, 3-Amino-4-hydroxybenzenesulfonic acid 99-05-8, 3-Aminobenzoic acid 99-07-0, 3-Dimethylaminophenol 99-31-0, 5-Aminoisophthalic acid 99-50-3, 3,4-Dihydroxybenzoic acid 100-01-6, 4-Nitroaniline, biological studies 101-77-9, 4,4'-Diaminodiphenylmethane 101-80-4, 4,4'-Diaminodiphenyl ether 102-32-9, 3,4-Dihydroxyphenylacetic acid 106-50-3, p-Phenylenediamine, biological studies 108-45-2, m-Phenylenediamine, biological studies 108-46-3, Resorcinol, biological studies 108-72-5, 1,3,5-Triaminobenzene 108-73-6, Phloroglucinol 118-12-7, 1,3,3-Trimethyl-2-methyleneindoline 118-70-7, 4,5,6-Triaminopyrimidine 118-92-3, 2-Aminobenzoic acid 119-59-5, 4,4'-Diaminodiphenyl sulfoxide 119-70-0, 4,4'-Diaminodiphenylamine-2-sulfonic acid 120-80-9, Pyrocatechol, biological studies 121-47-1, 3-Aminobenzenesulfonic acid 121-57-3, 4-Aminobenzenesulfonic acid 123-30-8, 4-Aminophenol 123-31-9, Hydroquinone, biological studies 139-65-1, 4,4'-Diaminodiphenyl sulfide 141-84-4, Rhodanine 141-86-6, 2,6-Diaminopyridine 149-91-7, Gallic acid, biological studies 150-13-0, 4-Aminobenzoic acid 150-19-6, 3-Methoxyphenol 150-75-4, 4-Methylaminophenol 150-76-5, 4-Methoxyphenol 156-81-0, 2,4-Diaminopyrimidine 452-58-4, 2,3-Diaminopyridine 462-08-8, 3-Aminopyridine 480-66-0 488-87-9, 2,5-Dimethylresorcinol 496-73-1, 4-Methylresorcinol 504-15-4, 5-Methylresorcinol 504-17-6, Thiobarbituric acid 504-24-5, 4-Aminopyridine 504-29-0, 2-Aminopyridine 517-22-6, 2,4-Dimethyl-3-ethylpyrrole 533-31-3, 3,4-Methylenedioxyphenol 533-73-3, Hydroxyhydroquinone 535-87-5, 3,5-Diaminobenzoic acid 537-65-5, 4,4'-Diaminodiphenylamine 578-66-5, 8-Aminoquinoline 580-17-6, 3-Aminoquinoline 580-22-3, 2-Aminoquinoline 582-17-2, 2,7-Dihydroxynaphthalene 591-27-5, 3-Aminophenol 603-81-6, 2,3-Diaminobenzoic acid 606-55-3 608-08-2, 3-Indoxyl acetate 608-25-3, 2-Methylresorcinol 610-74-2, 2,5-Diaminobenzoic acid 611-03-0, 2,4-Diaminobenzoic acid 611-09-6, 5-Nitroisatin 611-98-3, 4,4'-Diaminobenzophenone 615-50-9 615-66-7, 2-Chloro-p-phenylenediamine 615-71-4, 1,2,4-Triaminobenzene 619-05-6, 3,4-Diaminobenzoic acid 623-09-6, 4-Methylaminoaniline 636-25-9, 2,5-Diaminophenol 876-87-9 934-22-5, 5-Aminobenzimidazole 1004-74-6, 2,4,5,6-Tetraaminopyrimidine 1004-75-7, 4-Hydroxy-2,5,6-triaminopyrimidine 1123-55-3, 7-Aminobenzothiazole 1125-60-6, 5-Aminoisoquinoline 1197-55-3, 4-Aminophenylacetic acid 1455-77-2, 3,5-Diamino-1,2,4-triazole 1571-72-8, 3-Amino-4-hydroxybenzoic acid 1820-80-0, 3-Aminopyrazole 1953-54-4, 5-Hydroxyindole 2374-03-0, 4-Amino-3-hydroxybenzoic acid 2380-84-9, 7-Hydroxyindole 2380-86-1, 6-Hydroxyindole 2380-94-1, 4-Hydroxyindole 2654-52-6, 2,3-Dimethylbenzothiazolium p-toluenesulfonate 2785-06-0, 2,3-Dimethylbenzothiazolium iodide 2835-95-2, 2-Methyl-5-aminophenol 2835-99-6, 3-Methyl-4-aminophenol 2871-01-4, 2-Nitro-4-amino-1-(2-hydroxyethylamino)benzene 3131-52-0, 5,6-Dihydroxyindole 3158-63-2,

1,3-Dimethylthiobarbituric acid 3167-49-5, 6-Aminonicotinic acid
3433-54-3 3484-32-0 3855-78-5, 2,3,4-Trimethylpyrrole 4318-76-7,
2,5-Diaminopyridine 4331-29-7, 7-Aminobenzimidazole 4506-66-5,
1,2,4,5-Tetraaminobenzene tetrahydrochloride 4928-43-2,
2-Dimethylamino-5-aminopyridine 5007-67-0, 3,3',4,4'-
Tetraaminobenzophenone 5131-58-8 5192-03-0, 5-Aminoindole 5192-04-1,
7-Aminoindole 5192-23-4, 4-Aminoindole 5217-47-0, 1,3-
Diethylthiobarbituric acid 5318-27-4, 6-Aminoindole 5345-47-1,
2-Aminonicotinic acid 5418-63-3, 1,2,3,3-Tetramethyl-3H-indolium iodide
5434-20-8, 3-Aminophthalic acid 5453-79-2, 5,7-Dinitroisatin
5718-83-2, Rhodanine-3-acetic acid 5959-52-4, 3-Amino-2-naphthoic acid
6201-65-6, 2-Chlororesorcinol 6259-50-3, 6-Dimethylamino-4-hydroxy-2-
naphthalenesulfonic acid 6358-09-4 6399-72-0, 6-Amino-7-
hydroxynaphthalene-2-sulfonic acid 6628-04-2, 4-Aminoquinoline
6967-12-0, 6-Aminoindazole 7169-34-8, Coumaranone 7336-20-1
7411-49-6 7575-35-1, N,N-Bis(2-hydroxyethyl)-p-phenylenediamine
7749-47-5, 2-Amino-4-methoxy-6-methylpyrimidine 7768-28-7,
2-(2-Hydroxyethyl)phenol 13754-19-3, 4,5-Diaminopyrimidine 14268-66-7,
3,4-Methylenedioxyaniline 16082-33-0, 3,5-Diaminopyrazole 16867-03-1,
2-Amino-3-hydroxypyridine 19335-11-6, 5-Aminoindazole 20103-09-7,
2,5-Dichloro-p-phenylenediamine 22715-34-0, 2-Hydroxy-4,5,6-
triaminopyrimidine 23244-87-3, 2,4,5-Triaminopyridine 23894-07-7,
3,6-Dihydroxy-2,7-naphthalenedisulfonic acid 24119-24-2,
N,N-Bis[2-(4-aminophenoxy)ethyl]methylamine trihydrochloride 28020-38-4,
2,3-Diamino-6-methoxypyridine 29539-03-5, 5,6-Dihydroxyindoline
34572-45-7, 2-Nitro-1-amino-4-[bis(2-hydroxyethyl)amino]benzene
41927-50-8 49764-59-2, 5-Bromo-7-nitroisatin 50610-28-1
53666-79-8 53760-27-3, 4,4'-Diaminodiphenylamine sulfate 54381-16-7
55302-96-0, 2-Methyl-5-(2-hydroxyethylamino)phenol 56216-28-5,
3,5-Diamino-2,6-dimethoxypyridine dihydrochloride 61224-35-9
61693-42-3, 3-Amino-2,4-dichlorophenol 62496-02-0, 2-Methylamino-4,5,6-
triaminopyrimidine 66635-40-3, 4,4'-Diaminostilbene dihydrochloride
70643-19-5 74918-21-1, 1,3-Bis(2,4-diaminophenoxy)propane
tetrahydrochloride 79352-72-0, 4-Amino-2-aminomethylphenol 83732-72-3,
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2,6-Dihydroxy-3,4-dimethylpyridine 84540-50-1, 6-Methyl-3-amino-2-
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4-Hydroxyindoline 90817-34-8, 3-Amino-2-methylamino-6-methoxypyridine
93841-24-8, 2-(2,5-Diaminophenyl)ethanol 93841-25-9 99448-81-4
104333-09-7, 4-Amino-2-hydroxymethylphenol 110102-86-8,
2-Methyl-5-amino-4-chlorophenol 114402-54-9, 1,3-Bis(4-
aminophenylamino)propane 115423-86-4, 1,3-Diamino-2,4-dimethoxybenzene
117907-43-4, 4-Amino-2-nitrodiphenylamine-2'-carboxylic acid
126335-41-9, 2,5-Diaminophenetole 128729-30-6 130582-56-8,
1,3-Bis(4-aminophenylamino)-2-propanol 135043-64-0, 2-Aminomethyl-4-
aminophenol dihydrochloride 137290-86-9, 5-(2-Hydroxyethylamino)-4-
methoxy-2-methylphenol 144644-13-3 153255-76-6 159661-42-4,
2,5-Dihydroxy-4-morpholinoaniline 172161-92-1 177080-42-1,
2-Amino-4-(2-hydroxyethylamino)phenol 202525-71-1 202525-73-3,
2,4,5-Triaminophenol trihydrochloride 202525-76-6, 2,4,6-
Triaminoresorcinol trihydrochloride 202525-77-7 202525-78-8,
4,6-Diaminopyrogallol dihydrochloride 202525-79-9 215377-52-9,
3,4-Methylenediaminoaniline 220118-56-9 223383-77-5,
4-Amino-3-hydroxynaphthalenesulfonic acid 260981-02-0,
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phenylenediamine 278803-50-2 278803-51-3
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(nitroisatins for coloring **keratin**-containing fibers)

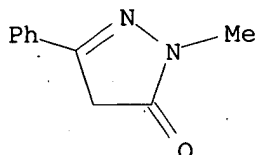
IT 41927-50-8

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(nitroisatins for coloring **keratin**-containing fibers)

RN 41927-50-8 HCAPLUS

CN 3H-Pyrazol-3-one, 2,4-dihydro-2-methyl-5-phenyl- (9CI) (CA INDEX NAME)



L11 ANSWER 21 OF 30 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2000:442108 HCAPLUS

DN 133:78999

TI Procedure for coloring keratin-containing fibers using 2-oxo carboxylic acid derivatives in combination with nucleophiles

IN Moeller, Hinrich; Hoeffkes, Horst

PA Henkel K.-G.a.A., Germany

SO Ger. Offen., 15 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 19859722	A1	20000629	DE 1998-19859722	19981223
	WO 2000038632	A1	20000706	WO 1999-EP9907	19991214
	W: AU, JP, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				

PRAI DE 1998-19859722 A 19981223

OS MARPAT 133:78999

AB Keratin fibers, especially human hair, are dyed with a combination of (a) 2-oxo carboxylic acid derivs. $R_1C(O)C(O)X$ [$R_1 = H$, C1-4 alkyl, CO_2H , (substituted) $PhCH_2$, (substituted) aryl, (substituted) heteroaryl; $X = O-$, OH , C1-4 alkoxy, NR_2R_3 ; $R_2, R_3 = H$, C1-4 alkyl, C2-4 hydroxyalkyl; or $R_2NR_3 =$ heterocycle] with (b) ≥ 1 primary or secondary aliphatic or aromatic amine, N heterocycle, oligopeptide, aromatic OH compound, or CH -active compound. These combinations can be used with or without the addition of oxidizing agents to produce colors of exceptional brilliance and depth. Thus, a solution containing Na pyruvate 10, 4,4'-diaminodiphenylamine sulfate

10,

NaOAc 10 mmol, and 1 drop of 20% fatty alkyl ether sulfate in 100 mL H_2O (pH 6) was applied to gray hair for 30 min at 30° to produce a blue-black color.

IC ICM A61K007-13

CC 62-3 (Essential Oils and **Cosmetics**)

ST hair dye oxo carboxylate nucleophile

IT Amines, biological studies

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(aliphatic; procedure for coloring keratin-containing fibers using 2-oxo carboxylic acid derivs. in combination with nucleophiles)

- IT Amines, biological studies
Nitriles, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(aromatic; procedure for coloring keratin-containing fibers using 2-oxo
carboxylic acid derivs. in combination with nucleophiles)
- IT Hydroxy compounds
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(aryl; procedure for coloring keratin-containing fibers using 2-oxo
carboxylic acid derivs. in combination with nucleophiles)
- IT Hair preparations
(dyes; procedure for coloring keratin-containing fibers using 2-oxo
carboxylic acid derivs. in combination with nucleophiles)
- IT Heterocyclic compounds
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(nitrogen; procedure for coloring keratin-containing fibers using 2-oxo
carboxylic acid derivs. in combination with nucleophiles)
- IT Carboxylic acids, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(oxo; procedure for coloring keratin-containing fibers using 2-oxo
carboxylic acid derivs. in combination with nucleophiles)
- IT Amines, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(primary; procedure for coloring keratin-containing fibers using 2-oxo
carboxylic acid derivs. in combination with nucleophiles)
- IT Nucleophiles
(procedure for coloring keratin-containing fibers using 2-oxo carboxylic
acid derivs. in combination with nucleophiles)
- IT Peptides, biological studies
Phenols, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(procedure for coloring keratin-containing fibers using 2-oxo carboxylic
acid derivs. in combination with nucleophiles)
- IT Amines, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(secondary; procedure for coloring keratin-containing fibers using 2-oxo
carboxylic acid derivs. in combination with nucleophiles)
- IT 59-48-3, Oxindole 62-53-3D, Aniline, derivs. 65-49-6, 4-Aminosalicylic
acid 67-52-7, Barbituric acid 83-30-7, 2,4,6-Trihydroxybenzoic acid
83-56-7, 1,5-Dihydroxynaphthalene 87-02-5, 7-Amino-4-hydroxynaphthalene-
2-sulfonic acid 87-66-1, Pyrogallol 88-21-1, 2-Aminobenzenesulfonic
acid 89-57-6, 5-Aminosalicylic acid 89-86-1, 2,4-Dihydroxybenzoic acid
90-05-1, 2-Methoxyphenol 90-15-3, 1-Naphthol 90-20-0,
4-Amino-5-hydroxynaphthalene-2,7-disulfonic acid 92-44-4,
2,3-Dihydroxynaphthalene 92-65-9 95-54-5, o-Phenylenediamine,
biological studies 95-55-6, 2-Aminophenol 95-70-5, 2,5-Diaminotoluene
95-88-5, 4-Chlororesorcinol 98-37-3, 3-Amino-4-hydroxybenzenesulfonic
acid 99-05-8, 3-Aminobenzoic acid 99-07-0, 3-Dimethylaminophenol
99-31-0, 5-Aminoisophthalic acid 99-50-3, 3,4-Dihydroxybenzoic acid
100-01-6, 4-Nitroaniline, biological studies 101-77-9 101-80-4
102-32-9, 3,4-Dihydroxyphenylacetic acid 106-50-3, p-Phenylenediamine,
biological studies 108-45-2, m-Phenylenediamine, biological studies
108-46-3, 1,3-Benzenediol, biological studies 108-72-5,

1,3,5-Triaminobenzene 108-73-6, Phloroglucinol 113-24-6, Sodium pyruvate 114-76-1, Sodium phenylpyruvate 118-70-7, 4,5,6-Triaminopyrimidine 118-92-3, 2-Aminobenzoic acid 119-59-5, 4,4'-Diaminodiphenyl sulfoxide 119-70-0, 4,4'-Diaminodiphenylamine-2-sulfonic acid 120-80-9, 1,2-Benzenediol, biological studies 121-47-1, 3-Aminobenzenesulfonic acid 121-57-3, 4-Aminobenzenesulfonic acid 123-30-8, 4-Aminophenol 123-31-9, 1,4-Benzenediol, biological studies 127-17-3, Pyruvic acid, biological studies 127-17-3D, Pyruvic acid, alkyl esters 139-65-1, 4,4'-Diaminodiphenyl sulfide 141-84-4, Rhodanine 141-86-6, 2,6-Diaminopyridine 149-91-7, Gallic acid, biological studies 150-13-0, 4-Aminobenzoic acid 150-19-6, 3-Methoxyphenol 150-75-4, 4-Methylaminophenol 150-76-5, 4-Methoxyphenol 156-06-9, Phenylpyruvic acid 156-06-9D, Phenylpyruvic acid, alkyl esters 156-81-0, 2,4-Diaminopyrimidine 298-12-4, Glyoxylic acid 298-12-4D, Glyoxylic acid, alkyl esters 452-58-4, 2,3-Diaminopyridine 462-08-8, 3-Aminopyridine 473-90-5, Mesoxalic acid 473-90-5D, Mesoxalic acid, alkyl esters 480-66-0 488-87-9, 2,5-Dimethylresorcinol 496-73-1, 4-Methylresorcinol 504-15-4, 5-Methylresorcinol 504-17-6, Thiobarbituric acid 504-24-5, 4-Aminopyridine 504-29-0, 2-Aminopyridine 517-22-6, 2,4-Dimethyl-3-ethylpyrrole 533-31-3, 3,4-Methylenedioxyphenol 533-73-3, Hydroxyhydroquinone 535-87-5, 3,5-Diaminobenzoic acid 537-65-5, 4,4'-Diaminodiphenylamine 578-66-5, 8-Aminoquinoline 580-17-6, 3-Aminoquinoline 580-22-3, 2-Aminoquinoline 582-17-2, 2,7-Dihydroxynaphthalene 591-27-5, 3-Aminophenol 603-81-6, 2,3-Diaminobenzoic acid 606-55-3 608-25-3, 2-Methylresorcinol 610-74-2, 2,5-Diaminobenzoic acid 611-03-0, 2,4-Diaminobenzoic acid 611-73-4, Phenylglyoxylic acid 611-73-4D, Phenylglyoxylic acid, alkyl esters 611-98-3, 4,4'-Diaminobenzophenone 615-50-9 615-66-7, 2-Chloro-p-phenylenediamine 615-71-4, 1,2,4-Triaminobenzene 619-05-6, 3,4-Diaminobenzoic acid 623-09-6, 4-Methylaminoaniline 636-25-9, 2,5-Diaminophenol 876-87-9 934-22-5, 5-Aminobenzimidazole 1004-74-6, 2,4,5,6-Tetraaminopyrimidine 1004-75-7, 4-Hydroxy-2,5,6-triaminopyrimidine 1123-55-3, 7-Aminobenzothiazole 1125-60-6, 5-Aminoisoquinoline 1197-55-3, 4-Aminophenylacetic acid 1455-77-2, 3,5-Diamino-1,2,4-triazole 1467-70-5, 2-Furylglyoxylic acid 1477-49-2, 3-Indolylglyoxylic acid 1477-49-2D, 3-Indolylglyoxylic acid, alkyl esters 1571-72-8, 3-Amino-4-hydroxybenzoic acid 1820-80-0, 3-Aminopyrazole 1953-54-4, 5-Hydroxyindole 2374-03-0, 4-Amino-3-hydroxybenzoic acid 2380-84-9, 7-Hydroxyindole 2380-86-1, 6-Hydroxyindole 2380-94-1, 4-Hydroxyindole 2654-52-6, 2,3-Dimethylbenzothiazolium p-toluenesulfonate 2706-75-4, Sodium glyoxylate 2785-06-0, 2,3-Dimethylbenzothiazolium iodide 2835-95-2, 2-Methyl-5-aminophenol 2835-99-6, 3-Methyl-4-aminophenol 2871-01-4, 2-Nitro-4-amino-1-(2-hydroxyethylamino)benzene 2990-19-4, Calcium glyoxylate 3131-52-0, 5,6-Dihydroxyindole 3158-63-2, 1,3-Dimethylthiobarbituric acid 3167-49-5, 6-Aminonicotinic acid 3855-78-5, 2,3,4-Trimethylpyrrole 4151-33-1, Potassium pyruvate 4318-76-7, 2,5-Diaminopyridine 4331-29-7, 7-Aminobenzimidazole 4506-66-5, 1,2,4,5-Tetraaminobenzene tetrahydrochloride 4928-43-2, 2-Dimethylamino-5-aminopyridine 5007-67-0, 3,3',4,4'-Tetraaminobenzophenone 5131-58-8 5192-03-0, 5-Aminoindole 5192-04-1, 7-Aminoindole 5192-23-4, 4-Aminoindole 5217-47-0, 1,3-Diethylthiobarbituric acid 5318-27-4, 6-Aminoindole 5345-47-1, 2-Aminonicotinic acid 5418-63-3 5434-20-8, 3-Aminophthalic acid 5548-10-7 5718-83-2, Rhodanine-3-acetic acid 5959-52-4, 3-Amino-2-naphthoic acid 6201-65-6, 2-Chlororesorcinol 6259-50-3, 6-Dimethylamino-4-hydroxy-2-naphthalenesulfonic acid 6358-09-4 6399-72-0, 6-Amino-7-hydroxynaphthalene-2-sulfonic acid 6628-04-2,

4-Aminoquinaldine 6967-12-0, 6-Aminoindazole 7099-91-4,
 4-Methoxyphenylglyoxylic acid 7099-91-4D, 4-Methoxyphenylglyoxylic acid,
 alkyl esters 7169-34-8, Coumaranone 7336-20-1 7346-13-6 7411-49-6
 7575-35-1, N,N-Bis(2-hydroxyethyl)-p-phenylenediamine 7749-47-5,
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 13754-19-3, 4,5-Diaminopyrimidine 14268-66-7, 3,4-Methylenedioxyaniline
 14922-36-2, 4-Nitrophenylglyoxylic acid 14922-36-2D,
 4-Nitrophenylglyoxylic acid, alkyl esters 16082-33-0,
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 4,6-Diaminopyrogallol dihydrochloride 202525-79-9 215377-52-9,
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 hydroxynaphthalenesulfonic acid 223422-05-7 260981-02-0,
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 phenylenediamine 278799-23-8 278799-24-9 278799-25-0
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
 (Uses)

(procedure for coloring **keratin**-containing fibers using 2-oxo
 carboxylic acid derivs. in combination with nucleophiles)

IT 278799-26-1 278799-27-2 278799-28-3 278799-29-4 278799-30-7
 278799-31-8 278799-33-0 278799-34-1

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES

(Uses)

(procedure for coloring keratin-containing fibers using 2-oxo carboxylic acid derivs. in combination with nucleophiles)

IT 41927-50-8

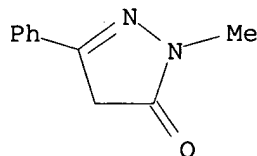
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES

(Uses)

(procedure for coloring **keratin**-containing fibers using 2-oxo carboxylic acid derivs. in combination with nucleophiles)

RN 41927-50-8 HCAPLUS

CN 3H-Pyrazol-3-one, 2,4-dihydro-2-methyl-5-phenyl- (9CI) (CA INDEX NAME)



L11 ANSWER 22 OF 30 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2000:172971 HCAPLUS

DN 132:227153

TI Procedure for coloring keratin-containing fibers using stable diazonium salts

IN Moeller, Hinrich; Hoeffkes, Horst

PA Henkel K.-G.a.A., Germany

SO Ger. Offen., 12 pp.

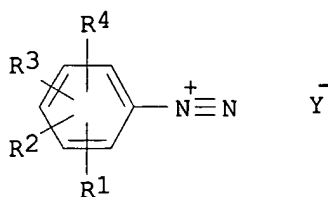
CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 19842071	A1	20000316	DE 1998-19842071	19980915
	WO 2000015184	A1	20000323	WO 1999-EP6526	19990904
	W: AU, JP, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	AU 9959733	A1	20000403	AU 1999-59733	19990904
	EP 1113779	A1	20010711	EP 1999-969020	19990904
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	JP 2002524484	T2	20020806	JP 2000-569769	19990904
PRAI	DE 1998-19842071	A	19980915		
	WO 1999-EP6526	W	19990904		
OS	MARPAT 132:227153				
GI					



I

- AB Stable diazonium salts I [R1-R4 = H, C1-4 alkyl, C1-4 alkoxy, hydroxy-C1-4-alkoxy, OH, SO3H, CO2H. (substituted) amino, C1-4 acyl; 2 of R1-R4 may together form a condensed benzene or N-heterocyclic ring; Y = anion], optionally combined with primary or secondary amines, N-heterocyclic compds., aromatic hydroxy compds., and/or active CH compds., are direct 1-step hair dyes which provide an exceptional brilliance and depth of color at least comparable with those obtainable with oxidative dyes. They may be used in the presence or absence of oxidizing agents. Thus, a slurry of 10 mmol 2,5-dimethoxy-4-benzoylaminophenyldiazonium chloride, 10 mmol 2,5-diaminotoluene sulfate, 10 mmol NaOAc, and 1 drop 20% fatty alkyl ether sulfate solution in 100 mL H2O was heated briefly to 80°, cooled, filtered, adjusted to pH 6.0, and the solution was applied to gray hair at 30° for 30 min to impart a medium-brown color.
- IC ICM A61K007-13
ICS D06P003-04; D06P003-14
- CC 62-3 (Essential Oils and **Cosmetics**)
Section cross-reference(s): 41
- ST diazonium salt hair dye; benzenediazonium salt hair dye
- IT Nitriles, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(aromatic; procedure for coloring keratin-containing fibers using stable diazonium salts)
- IT Hair preparations
(dyes; procedure for coloring keratin-containing fibers using stable diazonium salts)
- IT Heterocyclic compounds
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(nitrogen; procedure for coloring keratin-containing fibers using stable diazonium salts)
- IT Amines, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(primary; procedure for coloring keratin-containing fibers using stable diazonium salts)
- IT Hydroxy compounds
Phenols, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(procedure for coloring keratin-containing fibers using stable diazonium salts)
- IT Amines, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(secondary; procedure for coloring keratin-containing fibers using stable diazonium salts)
- IT 615-50-9
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(dprocedure for coloring keratin-containing fibers using stable diazonium salts)
- IT 51-81-0, 3-Aminophenol hydrochloride 59-48-3, Oxindole 62-53-3D, Aniline, derivs. 65-49-6, 4-Aminosalicylic acid 67-52-7, Barbituric acid 83-30-7, 2,4,6-Trihydroxybenzoic acid 83-56-7, 1,5-Dihydroxynaphthalene 84-65-1D, Anthraquinone, derivs. 87-02-5,

7-Amino-4-hydroxynaphthalene-2-sulfonic acid 87-66-1, Pyrogallol
88-21-1, 2-Aminobenzenesulfonic acid 89-57-6, 5-Aminosalicylic acid
89-86-1, 2,4-Dihydroxybenzoic acid 90-05-1, 2-Methoxyphenol 90-15-3,
1-Naphthol 90-20-0, 4-Amino-5-hydroxynaphthalene-2,7-disulfonic acid
92-44-4, 2,3-Dihydroxynaphthalene 95-54-5, o-Phenylenediamine,
biological studies 95-55-6, 2-Aminophenol 95-70-5, 2,5-Diaminotoluene
95-88-5, 4-Chlororesorcinol 98-37-3, 3-Amino-4-hydroxybenzenesulfonic
acid 99-05-8, 3-Aminobenzoic acid 99-07-0, 3-Dimethylaminophenol
99-31-0, 5-Aminoisophthalic acid 99-50-3, 3,4-Dihydroxybenzoic acid
100-01-6, 4-Nitroaniline, biological studies 101-69-9 101-77-9,
4,4'-Diaminodiphenylmethane 101-80-4, 4,4'-Diaminodiphenyl ether
102-32-9, 3,4-Dihydroxyphenylacetic acid 106-50-3, p-Phenylenediamine,
biological studies 108-45-2, m-Phenylenediamine, biological studies
108-46-3, Resorcinol, biological studies 108-72-5, 1,3,5-Triaminobenzene
108-73-6, Phloroglucinol 118-70-7, 4,5,6-Triaminopyrimidine 118-92-3,
2-Aminobenzoic acid 119-59-5, 4,4'-Diaminodiphenyl sulfoxide 119-70-0,
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120-80-9, Pyrocatechol, biological studies 121-47-1,
3-Aminobenzenesulfonic acid 121-57-3, 4-Aminobenzenesulfonic acid
123-30-8, 4-Aminophenol 123-31-9, Hydroquinone, biological studies
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Indoline, derivs. 496-73-1, 4-Methylresorcinol 500-85-6D, Indophenol,
derivs. 504-15-4, 5-Methylresorcinol 504-17-6, Thiobarbituric acid
504-24-5, 4-Aminopyridine 504-29-0, 2-Aminopyridine 517-22-6,
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7-Aminoindole 5192-23-4, 4-Aminoindole 5217-47-0, 1,3-Diethylthiobarbituric acid 5318-27-4, 6-Aminoindole 5345-47-1, 2-Aminonicotinic acid 5418-63-3 5434-20-8, 3-Aminophthalic acid 5718-83-2, Rhodanine-3-acetic acid 5959-52-4, 3-Amino-2-naphthoic acid 6201-65-6, 2-Chlororesorcinol 6259-50-3, 6-Dimethylamino-4-hydroxy-2-naphthalenesulfonic acid 6358-09-4 6399-72-0, 6-Amino-7-hydroxynaphthalene-2-sulfonic acid 6628-04-2, 4-Aminoquinoline 6967-12-0, 6-Aminoindazole 7169-34-8, Coumaranone 7336-20-1 7411-49-6, 3,3',4,4'-Tetraaminobiphenyl tetrahydrochloride 7575-35-1, N,N-Bis(2-hydroxyethyl)-p-phenylenediamine 7749-47-5, 2-Amino-4-methoxy-6-methylpyrimidine 7768-28-7, 2-(2-Hydroxyethyl)phenol 13754-19-3, 4,5-Diaminopyrimidine 14263-89-9 14268-66-7, 3,4-Methylenedioxyaniline 14338-36-4, 3-Aminophenylacetic acid 14726-28-4 15883-57-5, 2-Naphthol-3,6-disulfonic acid sodium salt 16082-33-0, 3,5-Diaminopyrazole 16867-03-1, 2-Amino-3-hydroxypyridine 17227-95-1 19335-11-6, 5-Aminoindazole 20103-09-7, 2,5-Dichloro-p-phenylenediamine 20546-03-6 22715-34-0, 2-Hydroxy-4,5,6-triaminopyrimidine 23244-87-3, 2,4,5-Triaminopyridine 23894-07-7, 3,6-Dihydroxy-2,7-naphthalenedisulfonic acid 24119-24-2, N,N-Bis[2-(4-aminophenoxy)ethyl]methylamine trihydrochloride 28020-38-4, 2,3-Diamino-6-methoxypyridine 28491-52-3 29539-03-5, 5,6-Dihydroxyindoline 29705-39-3 **41927-50-8** 49647-58-7, 2,4,5,6-Tetraaminopyrimidine sulfate 50610-28-1 51775-08-7 53760-27-3, 4,4'-Diaminodiphenylamine sulfate 54381-16-7 55302-96-0, 2-Methyl-5-(2-hydroxyethylamino)phenol 56216-28-5, 3,5-Diamino-2,6-dimethoxypyridine dihydrochloride 61693-42-3, 3-Amino-2,4-dichlorophenol 61925-55-1 62496-02-0, 2-Methylamino-4,5,6-triaminopyrimidine 64071-86-9 66422-95-5, 2,4-Diaminophenoxyethanol dihydrochloride 66635-40-3, 4,4'-Diaminostilbene dihydrochloride 70643-19-5, 2,4-Diaminophenoxyethanol 74918-21-1, 1,3-Bis(2,4-diaminophenoxy)propane tetrahydrochloride 79352-72-0, 4-Amino-2-aminomethylphenol 83732-72-3, 2-Methylamino-3-amino-6-methoxypyridine dihydrochloride 83763-47-7, 2-Amino-4-(2-hydroxyethylamino)anisole 84540-47-6, 2,6-Dihydroxy-3,4-dimethylpyridine 84540-50-1, 6-Methyl-3-amino-2-chlorophenol 85252-22-8 85679-78-3, 3,5-Diamino-2,6-dimethoxypyridine 85926-99-4, 4-Hydroxyindoline 90817-34-8, 3-Amino-2-methylamino-6-methoxypyridine 93841-24-8, 2-(2,5-Diaminophenyl)ethanol 93841-25-9 104333-09-7 110102-86-8, 2-Methyl-5-amino-4-chlorophenol 114402-54-9, 1,3-Bis(4-aminophenylamino)propane 115423-86-4, 1,3-Diamino-2,4-dimethoxybenzene 117907-43-4, 4-Amino-2-nitrodiphenylamine-2'-carboxylic acid 126335-41-9, 2,5-Diaminophenetole 128729-30-6 130582-56-8, 1,3-Bis(4-aminophenylamino)-2-propanol 135043-64-0, 2-Aminomethyl-4-aminophenol dihydrochloride 137290-86-9, 5-(2-Hydroxyethylamino)-4-methoxy-2-methylphenol 144644-13-3 159661-42-4 177080-42-1, 2-Amino-4-(2-hydroxyethylamino)phenol 202525-71-1 202525-73-3, 2,4,5-Triaminophenol trihydrochloride 202525-76-6, 2,4,6-Triaminoresorcinol trihydrochloride 202525-77-7 202525-78-8, 4,6-Diaminopyrogallol dihydrochloride 202525-79-9 215377-52-9, 3,4-Methylenediaminoaniline 223383-77-5, 4-Amino-3-hydroxynaphthalenesulfonic acid 260981-01-9 260981-02-0, N-(2-Methoxyethyl)-p-phenylenediamine 260981-03-1, 2,3-Dichloro-p-phenylenediamine 261156-43-8

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(procedure for coloring **keratin**-containing fibers using stable diazonium salts)

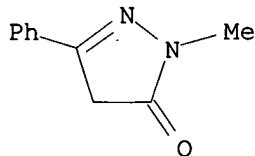
IT **41927-50-8**

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(procedure for coloring **keratin**-containing fibers using stable
diazonium salts)

RN 41927-50-8 HCAPLUS

CN 3H-Pyrazol-3-one, 2,4-dihydro-2-methyl-5-phenyl- (9CI) (CA INDEX NAME)



L11 ANSWER 23 OF 30 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 1999:81666 HCAPLUS

DN 130:143947

TI Application of di-and oligoacyl aromatic compounds for dyeing keratin
fibers

IN Moeller, Hinrich; Hoeffkes, Horst

PA Henkel K.-G.a.A., Germany

SO Ger. Offen., 12 pp.

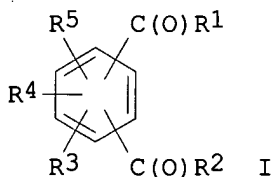
CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 19731400	A1	19990128	DE 1997-19731400	19970722
	WO 9904754	A1	19990204	WO 1998-EP4332	19980713
	W: AU, JP, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	AU 9885421	A1	19990216	AU 1998-85421	19980713
	EP 998256	A1	20000510	EP 1998-936419	19980713
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, FI				
	JP 2001510782	T2	20010807	JP 2000-503815	19980713
PRAI	DE 1997-19731400	A	19970722		
	WO 1998-EP4332	W	19980713		
OS	MARPAT 130:143947				
GI					



AB The title compds. (I; R1, R2 = C1-4 alkyl, aryl, heteroaryl; R3-R5 = H, halo, C1-4 alkyl, C1-4 alkoxy, C1-4 hydroxyalkoxy, OH, NO2, NH2, C1-4 acyl; R1 and R2 may not be 1,2-diacetyl), combined with primary or secondary amines or OH compds. and active CH compds., are useful as hair dyes which do not require the use of an oxidizing agent. These dyes provide excellent brilliance and depth of color with many color nuances.

Thus, a mixture of 1,4-diacetylbenzene 10, 2,5-diaminotoluene sulfate 10, NaOAc 10 mmol, and 1 drop 20% fatty alkyl ether sulfate solution in 100 mL H2O was heated to 80°, cooled, filtered, adjusted to pH 6, and applied to gray hair for 30 min at 30° to produce a dark violet color.

IC ICM A61K007-13

ICS D06P003-08

CC 62-3 (Essential Oils and **Cosmetics**)

ST acyl arom hair dye; acetylbenzene hair dye

IT Amino acids, biological studies

Hydroxy compounds

Peptides, biological studies

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)

(application of di-and oligoacyl aromatic compds. for dyeing keratin fibers)

IT Amines, biological studies

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)

(aromatic; application of di-and oligoacyl aromatic compds. for dyeing keratin fibers)

IT Amines, biological studies

Amines, biological studies

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)

(aryl, secondary; application of di-and oligoacyl aromatic compds. for dyeing keratin fibers)

IT Hydroxy compounds

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)

(aryl; application of di-and oligoacyl aromatic compds. for dyeing keratin fibers)

IT Hair preparations

(dyes; application of di-and oligoacyl aromatic compds. for dyeing keratin fibers)

IT Heterocyclic compounds

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)

(nitrogen; application of di-and oligoacyl aromatic compds. for dyeing keratin fibers)

IT Amines, biological studies

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)

(primary; application of di-and oligoacyl aromatic compds. for dyeing keratin fibers)

IT Amines, biological studies

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)

(secondary; application of di-and oligoacyl aromatic compds. for dyeing keratin fibers)

IT 59-48-3, Oxindole 65-49-6, 4-Aminosalicylic acid 67-52-7, Barbituric acid 83-30-7, 2,4,6-Trihydroxybenzoic acid 83-56-7, 1,5-Dihydroxynaphthalene 87-02-5, 7-Amino-4-hydroxynaphthalene-2-sulfonic acid 87-66-1, Pyrogallol 88-21-1, 2-Aminobenzenesulfonic acid 89-57-6, 5-Aminosalicylic acid 89-86-1, 2,4-Dihydroxybenzoic acid 90-05-1, 2-Methoxyphenol 90-15-3, 1-Naphthol 90-20-0, 4-Amino-5-hydroxynaphthalene-2,7-disulfonic acid 92-44-4, 2,3-Dihydroxynaphthalene 92-65-9 95-54-5, 1,2-Benzenediamine, biological studies 95-55-6, 2-Aminophenol 95-70-5 95-88-5,

4-Chlororesorcinol 98-37-3, 3-Amino-4-hydroxybenzenesulfonic acid 99-05-8, 3-Aminobenzoic acid 99-07-0, 3-Dimethylaminophenol 99-31-0, 5-Aminoisophthalic acid 99-50-3, 3,4-Dihydroxybenzoic acid 101-80-4, 102-32-9, 3,4-Dihydroxyphenylacetic acid 106-50-3, 1,4-Benzenediamine, biological studies 108-46-3, 1,3-Benzenediol, biological studies 108-72-5, 1,3,5-Triaminobenzene 108-73-6, Phloroglucinol 118-70-7, 4,5,6-Triaminopyrimidine 118-92-3, 2-Aminobenzoic acid 120-80-9, 1,2-Benzenediol, biological studies 121-47-1, 3-Aminobenzenesulfonic acid 121-57-3 123-30-8 123-31-9, 1,4-Benzenediol, biological studies 141-84-4, Rhodanine 141-86-6, 2,6-Diaminopyridine 149-91-7, Gallic acid, biological studies 150-13-0, 4-Aminobenzoic acid 150-19-6, 3-Methoxyphenol 150-75-4, 4-Methylaminophenol 150-76-5, 4-Methoxyphenol 156-81-0, 2,4-Diaminopyrimidine 452-58-4, 2,3-Diaminopyridine 462-08-8, 3-Aminopyridine 480-66-0 488-87-9, 2,5-Dimethylresorcinol 496-73-1, 4-Methylresorcinol 504-15-4, 5-Methylresorcinol 504-17-6, Thiobarbituric acid 504-24-5, 4-Aminopyridine 504-29-0, 2-Aminopyridine 517-22-6, 2,4-Dimethyl-3-ethylpyrrole 533-31-3, 3,4-Methylenedioxyphenol 533-73-3, Hydroxyhydroquinone 535-87-5, 3,5-Diaminobenzoic acid 578-66-5, 8-Aminoquinoline 580-17-6, 3-Aminoquinoline 580-22-3, 2-Aminoquinoline 582-17-2, 2,7-Dihydroxynaphthalene 591-27-5, 3-Aminophenol 603-81-6, 2,3-Diaminobenzoic acid 606-55-3, 1-Ethylquinaldinium iodide 608-25-3 610-74-2, 2,5-Diaminobenzoic acid 611-03-0, 2,4-Diaminobenzoic acid 611-98-3, 4,4'-Diaminobenzophenone 615-50-9 615-66-7, 2-Chloro-p-phenylenediamine 615-71-4, 1,2,4-Triaminobenzene 619-05-6 623-09-6, 4-Methylaminoaniline 636-25-9, 2,5-Diaminophenol 704-00-7, 1,2-Diacetylbenzene 779-90-8, 1,3,5-Triacetylbenzene 876-87-9, 1-Methylquinaldinium iodide 934-22-5, 5-Aminobenzimidazole 1004-74-6, 2,4,5,6-Tetraaminopyrimidine 1004-75-7, 4-Hydroxy-2,5,6-triaminopyrimidine 1009-61-6, 1,4-Diacetylbenzene 1123-55-3, 7-Aminobenzothiazole 1123-93-9, 5-Aminobenzothiazole 1125-60-6, 5-Aminoisoquinoline 1197-55-3, 4-Aminophenylacetic acid 1455-77-2, 3,5-Diamino-1,2,4-triazole 1571-72-8, 3-Amino-4-hydroxybenzoic acid 1770-96-3 1820-80-0, 3-Aminopyrazole 1953-54-4, 5-Hydroxyindole 2374-03-0, 4-Amino-3-hydroxybenzoic acid 2380-84-9, 7-Hydroxyindole 2380-86-1, 6-Hydroxyindole 2380-94-1, 4-Hydroxyindole 2654-52-6, 2,3-Dimethylbenzothiazolium p-toluenesulfonate 2767-73-9 2785-06-0, 2,3-Dimethylbenzothiazolium iodide 2835-99-6, 3-Methyl-4-aminophenol 3131-52-0, 5,6-Dihydroxyindole 3158-63-2, 1,3-Dimethylthiobarbituric acid 3167-49-5, 6-Aminonicotinic acid 3855-78-5, 2,3,4-Trimethylpyrrole 4318-76-7, 2,5-Diaminopyridine 4331-29-7, 1H-Benzimidazol-4-amine 4506-66-5, 1,2,4,5-Tetraaminobenzene tetrahydrochloride 4928-43-2 5007-67-0, 3,3',4,4'-Tetraaminobenzophenone 5192-03-0, 5-Aminoindole 5192-04-1, 7-Aminoindole 5192-23-4, 4-Aminoindole 5217-47-0, 1,3-Diethylthiobarbituric acid 5318-27-4, 6-Aminoindole 5345-47-1, 2-Aminonicotinic acid 5392-28-9 5418-63-3, 1,2,3,3-Tetramethyl-3H-indolium iodide 5434-20-8, 3-Aminophthalic acid 5718-83-2, Rhodanine-3-acetic acid 5959-52-4, 3-Amino-2-naphthoic acid 6201-65-6, 2-Chlororesorcinol 6259-50-3 6399-72-0 6628-04-2, 4-Aminoquinaldine 6781-42-6, 1,3-Diacetylbenzene 6967-12-0, 6-Aminoindazole 7169-34-8, Coumaranone 7411-49-6 7575-35-1, N,N-Bis(2-hydroxyethyl)-p-phenylenediamine 7749-47-5, 2-Amino-4-methoxy-6-methylpyrimidine 7768-28-7, 2-(2-Hydroxyethyl)phenol 13754-19-3, 4,5-Diaminopyrimidine 14268-66-7, 3,4-Methylenedioxyaniline 16082-33-0, 3,5-Diaminopyrazole 16867-03-1, 2-Amino-3-hydroxypyridine 18019-57-3 19335-11-6, 5-Aminoindazole 20103-09-7, 2,5-Dichloro-p-phenylenediamine 20724-48-5 22715-34-0, 2-Hydroxy-4,5,6-triaminopyrimidine 23244-87-3,

2,4,5-Pyridinetriamine 23894-07-7, 3,6-Dihydroxy-2,7-naphthalenedisulfonic acid 24119-24-2 25394-13-2, Sodium 4,4'-diaminostilbene-2,2'-disulfonate 28020-38-4, 2,3-Diamino-6-methoxypyridine 29539-03-5, 5,6-Dihydroxyindoline 33630-99-8, 3-Amino-2-hydroxypyridine **41927-50-8** 41946-53-6 53666-79-8 53760-27-3, 4,4'-Diaminodiphenylamine sulfate 55302-96-0, 2-Methyl-5-(2-hydroxyethylamino)phenol 56216-28-5 60320-10-7 61224-35-9 61693-42-3 62496-02-0, 2-Methylamino-4,5,6-triaminopyrimidine 66566-48-1 66635-40-3 69984-77-6, 7-Aminobenzimidazole 70643-19-5, 2,4-Diaminophenoxyethanol 74918-21-1 79352-72-0 83732-72-3 84540-47-6, 2,6-Dihydroxy-3,4-dimethylpyridine 84540-50-1 85679-78-3, 3,5-Diamino-2,6-dimethoxypyridine 85926-99-4, 4-Hydroxyindoline 89725-66-6 90817-30-4 90817-34-8, 3-Amino-2-methylamino-6-methoxypyridine 93841-24-8, 2-(2,5-Diaminophenyl)ethanol 93841-25-9 104333-09-7 115423-86-4 126335-41-9 128729-30-6 130582-56-8 131212-31-2 135043-64-0 137290-86-9 144644-13-3 147801-94-3 147801-97-6 159661-42-4 202525-71-1 202525-73-3 202525-74-4 202525-75-5 202525-76-6 202525-77-7 202525-78-8 202525-79-9 215377-52-9 220118-52-5 220118-53-6 220118-56-9

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(application of di-and oligoacyl aromatic compds. for dyeing **keratin** fibers)

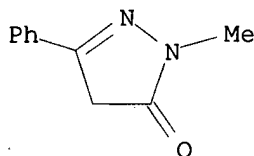
IT **41927-50-8**

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(application of di-and oligoacyl aromatic compds. for dyeing **keratin** fibers)

RN 41927-50-8 HCAPLUS

CN 3H-Pyrazol-3-one, 2,4-dihydro-2-methyl-5-phenyl- (9CI) (CA INDEX NAME)



L11. ANSWER 24 OF 30 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 1998:716277 HCAPLUS

DN 129:347139

TI Use of tropolones for dyeing keratin fibers

IN Moeller, Hinrich; Hoeffkes, Horst

PA Henkel K.-G.a.A., Germany

SO Ger. Offen., 10 pp.

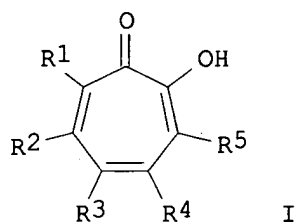
CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 19717225	A1	19981029	DE 1997-19717225	19970424
PRAI	DE 1997-19717225		19970424		
OS	MARPAT 129:347139				
GI					



AB Tropolone derivs. [I; R1-R5 = H, halo, C1-4 alkyl; or R1R2 completes a (substituted) condensed benzo group] are components of nonoxidative or oxidative hair dyes with improved intensity and fastness toward light, washing, and friction and cause little or no skin sensitization. I are applied together with primary or secondary amines, N-heterocyclic compds., aromatic OH compds., or compds. with active CH groups to produce yellow, orange, brown, blue-black, and black colorations. Thus, purpurogallin 10, 2,4,5,6-tetraaminopyrimidine sulfate 10, NaOAc 10 mmol, and 1 drop 20% fatty alkyl ether sulfate were suspended in 100 mL H₂O, the suspension was heated briefly to 80°, cooled, and filtered, and the pH was adjusted to 6. Gray hair exposed to this solution for 30 min at 30° took on an orange-brown color.

IC ICM A61K007-13

ICS C07C049-717; C07C049-733; C07C211-00; C07C037-00; D06P003-04; D06P003-08

ICA D06P003-14; D06P003-30

CC 62-3 (Essential Oils and **Cosmetics**)

ST tropolone deriv hair dye

IT Amines, biological studies

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(aromatic; use of tropolones for dyeing keratin fibers)

IT Amines, biological studies

Amines, biological studies

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(aryl, secondary; use of tropolones for dyeing keratin fibers)

IT Hair preparations

(dyes, oxidative; use of tropolones for dyeing keratin fibers)

IT Hair preparations

(dyes; use of tropolones for dyeing keratin fibers)

IT Heterocyclic compounds

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(nitrogen; use of tropolones for dyeing keratin fibers)

IT Alcohols, biological studies

Amines, biological studies

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(primary; use of tropolones for dyeing keratin fibers)

IT Alcohols, biological studies

Amines, biological studies

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(secondary; use of tropolones for dyeing keratin fibers)

IT Amino acids, biological studies
Peptides, biological studies
Phenols, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(use of tropolones for dyeing keratin fibers)

IT 144644-13-3
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(use of benzylidene ketones for dyeing keratin fibers)

IT 59-48-3, Oxindole 65-49-6, 4-Aminosalicylic acid 67-52-7, Barbituric acid 83-30-7 83-56-7, 1,5-Dihydroxynaphthalene 87-02-5, 7-Amino-4-hydroxynaphthalene-2-sulfonic acid 87-66-1, Pyrogallol 88-21-1, 2-Aminobenzenesulfonic acid 89-57-6, 5-Aminosalicylic acid 89-86-1, 2,4-Dihydroxybenzoic acid 90-05-1, 2-Methoxyphenol 90-15-3, 1-Naphthol 90-20-0, 4-Amino-5-hydroxynaphthalene-2,7-disulfonic acid 92-44-4, 2,3-Dihydroxynaphthalene 92-65-9 95-54-5, o-Phenylenediamine, biological studies 95-55-6, 2-Aminophenol 95-70-5, 2,5-Diaminotoluene 95-88-5, 4-Chlororesorcinol 98-37-3, 3-Amino-4-hydroxybenzenesulfonic acid 99-05-8, 3-Aminobenzoic acid 99-07-0, 3-Dimethylaminophenol 99-31-0, 5-Aminoisophthalic acid 99-50-3, 3,4-Dihydroxybenzoic acid 101-77-9, 4,4'-Diaminodiphenylmethane 101-80-4 102-32-9, 3,4-Dihydroxyphenylacetic acid 106-50-3, 1,4-Benzenediamine, biological studies 108-45-2, 1,3-Benzenediamine, biological studies 108-46-3, 1,3-Benzenediol, biological studies 108-72-5, 1,3,5-Triaminobenzene 108-73-6, Phloroglucinol 116-63-2 118-70-7, 4,5,6-Triaminopyrimidine 118-92-3, 2-Aminobenzoic acid 119-59-5, 4,4'-Diaminodiphenyl sulfoxide 119-70-0, 4,4'-Diaminodiphenylamine-2-sulfonic acid 120-80-9, Pyrocatechol, biological studies 121-47-1, 3-Aminobenzenesulfonic acid 121-57-3, 4-Aminobenzenesulfonic acid 123-30-8 123-31-9, 1,4-Benzenediol, biological studies 139-65-1, 4,4'-Diaminodiphenyl sulfide 141-84-4, Rhodanine 141-86-6, 2,6-Diaminopyridine 149-91-7, Gallic acid, biological studies 150-13-0 150-19-6, 3-Methoxyphenol 150-75-4, 4-Methylaminophenol 150-76-5, 4-Methoxyphenol 156-81-0, 2,4-Diaminopyrimidine 363-67-7, 3,5,7-Tribromotropolone 452-58-4, 2,3-Diaminopyridine 462-08-8, 3-Aminopyridine 480-66-0 488-87-9, 2,5-Dimethylresorcinol 496-73-1, 4-Methylresorcinol 499-44-5, Hinokitiol 504-15-4, 5-Methylresorcinol 504-17-6, Thiobarbituric acid 504-24-5, 4-Aminopyridine 504-29-0, 2-Aminopyridine 517-22-6, 2,4-Dimethyl-3-ethylpyrrole 533-31-3, 3,4-Methylenedioxyphenol 533-73-3, Hydroxyhydroquinone 533-75-5, Tropolone 535-87-5, 3,5-Diaminobenzoic acid 537-65-5, 4,4'-Diaminodiphenylamine 569-77-7, Purpurogallin 569-77-7D, Purpurogallin, Me ethers 578-66-5, 8-Aminoquinoline 580-17-6, 3-Aminoquinoline 580-22-3, 2-Aminoquinoline 582-17-2, 2,7-Dihydroxynaphthalene 591-27-5, 3-Aminophenol 603-81-6, 2,3-Diaminobenzoic acid 606-55-3 608-25-3, 2-Methylresorcinol 610-74-2, 2,5-Diaminobenzoic acid 611-03-0, 2,4-Diaminobenzoic acid 611-98-3, 4,4'-Diaminobenzophenone 615-50-9 615-66-7, 2-Chloro-p-phenylenediamine 615-71-4, 1,2,4-Triaminobenzene 619-05-6, 3,4-Diaminobenzoic acid 623-09-6 636-25-9, 2,5-Diaminophenol 876-87-9 934-22-5, 5-Aminobenzimidazole 1004-74-6, 2,4,5,6-Tetraaminopyrimidine 1004-75-7, 4-Hydroxy-2,5,6-triaminopyrimidine 1123-55-3, 7-Aminobenzothiazole 1125-60-6, 5-Aminoisoquinoline 1197-55-3, 4-Aminophenylacetic acid 1455-77-2, 3,5-Diamino-1,2,4-triazole 1571-72-8, 3-Amino-4-hydroxybenzoic acid 1820-80-0, 3-Aminopyrazole 1953-54-4, 5-Hydroxyindole 2374-03-0, 4-Amino-3-hydroxybenzoic acid 2380-84-9, 7-Hydroxyindole 2380-86-1, 6-Hydroxyindole 2380-94-1, 4-Hydroxyindole 2654-52-6,

2,3-Dimethylbenzothiazolium p-toluenesulfonate 2785-06-0,
 2,3-Dimethylbenzothiazolium iodide 2835-95-2, 2-Methyl-5-aminophenol
 2835-99-6, 3-Methyl-4-aminophenol 2885-58-7, 3,5,7-Trimethyltropolone
 3131-52-0, 5,6-Dihydroxyindole 3158-63-2, 1,3-Dimethylthiobarbituric
 acid 3167-49-5, 6-Aminonicotinic acid 3855-78-5, 2,3,4-
 Trimethylpyrrole 4318-76-7, 2,5-Diaminopyridine 4331-29-7,
 4-Aminobenzimidazole 4506-66-5, 1,2,4,5-Tetraaminobenzene
 tetrahydrochloride 4928-43-2 5007-67-0, 3,3',4,4'-
 Tetraaminobenzophenone 5192-03-0, 5-Aminoindole 5192-04-1,
 7-Aminoindole 5192-23-4, 4-Aminoindole 5217-47-0, 1,3-
 Diethylthiobarbituric acid 5318-27-4, 6-Aminoindole 5345-47-1,
 2-Aminonicotinic acid 5434-20-8, 3-Aminophthalic acid 5718-83-2,
 Rhodanine-3-acetic acid 5959-52-4, 3-Amino-2-naphthoic acid 6201-65-6,
 2-Chlororesorcinol 6259-50-3 6399-72-0 6628-04-2, 4-Aminoquinoline
 6967-12-0, 6-Aminoindazole 7169-34-8, Coumaranone 7336-20-1, Disodium
 4,4'-diaminostilbene-2,2'-disulfonate 7411-49-6 7575-35-1,
 N,N-Bis(2-hydroxyethyl)-p-phenylenediamine 7749-47-5,
 2-Amino-4-methoxy-6-methylpyrimidine 7768-28-7, 2-(2-Hydroxyethyl)phenol
 13754-19-3, 4,5-Diaminopyrimidine 14268-66-7, 3,4-Methylenedioxyaniline
 16082-33-0, 3,5-Diaminopyrazole 16867-03-1, 2-Amino-3-hydroxypyridine
 19335-11-6, 5-Aminoindazole 20103-09-7, 2,5-Dichloro-p-phenylenediamine
 22715-34-0, 2-Hydroxy-4,5,6-triaminopyrimidine 23244-87-3,
 2,4,5-Pyridinetriamine 23894-07-7, 3,6-Dihydroxy-2,7-
 naphthalenedisulfonic acid 24119-24-2 28020-38-4, 2,3-Diamino-6-
 methoxypyridine 29539-03-5, 5,6-Dihydroxyindoline **41927-50-8**
 41946-53-6 49647-58-7, 2,4,5,6-Tetraaminopyrimidine sulfate 53666-79-8
 53760-27-3, 4,4'-Diaminodiphenylamine sulfate 55302-96-0,
 2-Methyl-5-(2-hydroxyethylamino)phenol 56216-28-5 58262-44-5
 61693-42-3 62496-02-0, 2-Methylamino-4,5,6-triaminopyrimidine
 66566-48-1 66635-40-3 69984-77-6, 7-Aminobenzimidazole 70643-19-5,
 2,4-Diaminophenoxyethanol 74918-21-1 79352-72-0 83732-72-3
 84540-47-6, 2,6-Dihydroxy-3,4-dimethylpyridine 84540-50-1 85679-78-3,
 3,5-Diamino-2,6-dimethoxypyridine 85926-99-4, 4-Hydroxyindoline
 90817-34-8, 3-Amino-2-methylamino-6-methoxypyridine 93841-24-8,
 2-(2,5-Diaminophenyl)ethanol 93841-25-9 104333-09-7 110102-86-8
 114402-54-9 115423-86-4 128729-30-6 130582-56-8 137290-86-9
 159661-42-4 202525-71-1 202525-73-3 202525-74-4 202525-75-5
 202525-76-6 202525-77-7 202525-78-8 202525-79-9 215377-52-9
 215377-53-0 215377-55-2 215377-56-3 215526-02-6

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
 (Uses)

(use of tropolones for dyeing **keratin** fibers)

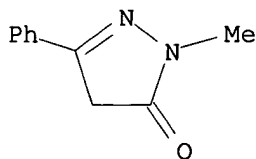
IT **41927-50-8**

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
 (Uses)

(use of tropolones for dyeing **keratin** fibers)

RN 41927-50-8 HCAPLUS

CN 3H-Pyrazol-3-one, 2,4-dihydro-2-methyl-5-phenyl- (9CI) (CA INDEX NAME)



L11 ANSWER 25 OF 30 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 1998:716118 . HCAPLUS

DN 129:347138

TI Use of amino vinyl aldehydes and ketones for dyeing keratin fibers

IN Moeller, Hinrich; Hoeffkes, Horst; Meinigke, Bernd

PA Henkel Kommanditgesellschaft Auf Aktien, Germany

SO Eur. Pat. Appl., 16 pp.

CODEN: EPXXDW

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 873746	A2	19981028	EP 1998-106959	19980416
	EP 873746	A3	19991222		

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO

DE 19717223 A1 19981029 DE 1997-19717223 19970424

PRAI DE 1997-19717223 A 19970424

OS MARPAT 129:347138

AB The title compds., R1R2N(CR3:CR4)nCR5:CR6C(O)R7 [I; R1, R2 = H, alkyl, hydroxyalkyl, (substituted) Ph, or R1NR2 = heterocyclic ring; R3-R7 = H, Cl-4 alkyl, halo; n = 0-2; if n = 1, R4 and R6, or R6 and R7, may together form a ring], are components of nonoxidative or oxidative hair dyes which provide an intensity and fastness of color comparable to conventional oxidative dyes and cause little or no skin sensitization. I alone impart hair colors mainly in the yellow spectral region; I may be applied together with primary or secondary amines, N-heterocyclic compds., aromatic OH compds., or compds. with active CH groups to produce yellow, orange, brown, and black coloration. Thus, 3-dimethylaminoacrolein 10, 2,5-diaminotoluene sulfate 10, NaOAc 10 mmol, and 1 drop 20% fatty alkyl ether sulfate were suspended in 100 mL H2O, the suspension was heated briefly to 80°, cooled, and filtered, and the pH was adjusted to 6. Gray hair exposed to this solution for 30 min at 30° took on a reddish-brown color.

IC ICM A61K007-13

CC 62-3 (Essential Oils and **Cosmetics**)

ST amino vinyl ketone hair dye; aldehyde amino vinyl hair dye

IT Amines, biological studies

Amines, biological studies

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(amino aldehydes; use of amino vinyl aldehydes and ketones for dyeing keratin fibers)

IT Aldehydes, biological studies

Aldehydes, biological studies

Ketones, biological studies

Ketones, biological studies

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(amino; use of amino vinyl aldehydes and ketones for dyeing keratin fibers)

IT Amines, biological studies

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(aromatic; use of amino vinyl aldehydes and ketones for dyeing keratin fibers)

IT Amines, biological studies

Amines, biological studies

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(aryl, secondary; use of amino vinyl aldehydes and ketones for dyeing
keratin fibers)

IT Hair preparations
(dyes, oxidative; use of amino vinyl aldehydes and ketones for dyeing
keratin fibers)

IT Hair preparations
(dyes; use of amino vinyl aldehydes and ketones for dyeing keratin
fibers)

IT Amines, biological studies
Amines, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(keto; use of amino vinyl aldehydes and ketones for dyeing keratin
fibers)

IT Heterocyclic compounds
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(nitrogen; use of amino vinyl aldehydes and ketones for dyeing keratin
fibers)

IT Alcohols, biological studies
Amines, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(primary; use of amino vinyl aldehydes and ketones for dyeing keratin
fibers)

IT Alcohols, biological studies
Amines, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(secondary; use of amino vinyl aldehydes and ketones for dyeing keratin
fibers)

IT Aldehydes, biological studies
Ketones, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(unsatd.; use of amino vinyl aldehydes and ketones for dyeing keratin
fibers)

IT Amino acids, biological studies
Peptides, biological studies
Phenols, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(use of amino vinyl aldehydes and ketones for dyeing keratin fibers)

IT 59-48-3, Oxindole 65-49-6, 4-Aminosalicylic acid 67-52-7, Barbituric
acid 83-30-7 83-56-7, 1,5-Dihydroxynaphthalene 87-02-5,
7-Amino-4-hydroxynaphthalene-2-sulfonic acid 87-66-1, Pyrogallol
88-21-1, 2-Aminobenzenesulfonic acid 89-57-6, 5-Aminosalicylic acid
89-86-1, 2,4-Dihydroxybenzoic acid 90-05-1, 2-Methoxyphenol 90-15-3,
1-Naphthol 90-20-0, 4-Amino-5-hydroxynaphthalene-2,7-disulfonic acid
92-44-4, 2,3-Dihydroxynaphthalene 92-65-9 95-54-5, o-Phenylenediamine,
biological studies 95-55-6, 2-Aminophenol 95-70-5, 2,5-Diaminotoluene
95-88-5, 4-Chlororesorcinol 98-37-3, 3-Amino-4-hydroxybenzenesulfonic
acid 99-05-8, 3-Aminobenzoic acid 99-07-0, 3-Dimethylaminophenol
99-31-0, 5-Aminoisophthalic acid 99-50-3, 3,4-Dihydroxybenzoic acid
101-77-9, 4,4'-Diaminodiphenylmethane 101-80-4 102-32-9,
3,4-Dihydroxyphenylacetic acid 106-50-3, 1,4-Benzenediamine, biological
studies 108-45-2, 1,3-Benzenediamine, biological studies 108-46-3,

1,3-Benzenediol, biological studies 108-72-5, 1,3,5-Triaminobenzene
108-73-6, Phloroglucinol 116-63-2 118-70-7, 4,5,6-Triaminopyrimidine
118-92-3, 2-Aminobenzoic acid 119-59-5, 4,4'-Diaminodiphenyl sulfoxide
119-70-0, 4,4'-Diaminodiphenylamine-2-sulfonic acid 120-80-9,
Pyrocatechol, biological studies 121-47-1, 3-Aminobenzenesulfonic acid
121-57-3, 4-Aminobenzenesulfonic acid 123-30-8 123-31-9,
1,4-Benzenediol, biological studies 139-65-1, 4,4'-Diaminodiphenyl
sulfide 141-84-4, Rhodanine 141-86-6, 2,6-Diaminopyridine 149-91-7,
Gallic acid, biological studies 150-13-0 150-19-6, 3-Methoxyphenol
150-75-4, 4-Methylaminophenol 150-76-5, 4-Methoxyphenol 156-81-0,
2,4-Diaminopyrimidine 452-58-4, 2,3-Diaminopyridine 462-08-8,
3-Aminopyridine 480-66-0 488-87-9, 2,5-Dimethylresorcinol 496-15-1,
Indoline 496-73-1, 4-Methylresorcinol 504-15-4, 5-Methylresorcinol
504-17-6, Thiobarbituric acid 504-24-5, 4-Aminopyridine 504-29-0,
2-Aminopyridine 517-22-6, 2,4-Dimethyl-3-ethylpyrrole 533-31-3,
3,4-Methylenedioxyphenol 533-73-3, Hydroxyhydroquinone 535-87-5,
3,5-Diaminobenzoic acid 537-65-5, 4,4'-Diaminodiphenylamine 578-66-5,
8-Aminoquinoline 580-17-6, 3-Aminoquinoline 580-22-3, 2-Aminoquinoline
582-17-2, 2,7-Dihydroxynaphthalene 591-27-5, 3-Aminophenol 603-81-6,
2,3-Diaminobenzoic acid 606-55-3 608-25-3, 2-Methylresorcinol
610-74-2, 2,5-Diaminobenzoic acid 611-03-0, 2,4-Diaminobenzoic acid
611-98-3, 4,4'-Diaminobenzophenone 615-50-9 615-66-7,
2-Chloro-p-phenylenediamine 615-71-4, 1,2,4-Triaminobenzene 619-05-6,
3,4-Diaminobenzoic acid 623-09-6 636-25-9, 2,5-Diaminophenol
876-87-9 927-63-9, 3-Dimethylaminoacrolein 934-22-5,
5-Aminobenzimidazole 1004-74-6, 2,4,5,6-Tetraaminopyrimidine
1004-75-7, 4-Hydroxy-2,5,6-triaminopyrimidine 1123-55-3,
7-Aminobenzothiazole 1125-60-6, 5-Aminoisoquinoline 1190-91-6
1197-55-3, 4-Aminophenylacetic acid 1455-77-2, 3,5-Diamino-1,2,4-
triazole 1497-49-0 1571-72-8, 3-Amino-4-hydroxybenzoic acid
1820-80-0, 3-Aminopyrazole 1953-54-4, 5-Hydroxyindole 2374-03-0,
4-Amino-3-hydroxybenzoic acid 2380-84-9, 7-Hydroxyindole 2380-86-1,
6-Hydroxyindole 2380-94-1, 4-Hydroxyindole 2654-52-6,
2,3-Dimethylbenzothiazolium p-toluenesulfonate 2785-06-0,
2,3-Dimethylbenzothiazolium iodide 2835-95-2, 2-Methyl-5-aminophenol
2835-99-6, 3-Methyl-4-aminophenol 3131-52-0, 5,6-Dihydroxyindole
3158-63-2, 1,3-Dimethylthiobarbituric acid 3167-49-5, 6-Aminonicotinic
acid 3855-78-5, 2,3,4-Trimethylpyrrole 4030-58-4 4318-76-7,
2,5-Diaminopyridine 4331-29-7, 4-Aminobenzimidazole 4506-66-5,
1,2,4,5-Tetraaminobenzene tetrahydrochloride 4688-60-2,
5-Dimethylamino-2,4-pentadienal 4928-43-2 5007-67-0,
3,3',4,4'-Tetraaminobenzophenone 5192-03-0, 5-Aminoindole 5192-04-1,
7-Aminoindole 5192-23-4, 4-Aminoindole 5217-47-0, 1,3-
Diethylthiobarbituric acid 5318-27-4, 6-Aminoindole 5345-47-1,
2-Aminonicotinic acid 5434-20-8, 3-Aminophthalic acid 5718-83-2,
Rhodanine-3-acetic acid 5959-52-4, 3-Amino-2-naphthoic acid 6201-65-6,
2-Chlororesorcinol 6259-50-3 6399-72-0 6628-04-2, 4-Aminoquinaldine
6967-12-0, 6-Aminoindazole 7169-34-8, Coumaranone 7336-20-1, Disodium
4,4'-diaminostilbene-2,2'-disulfonate 7411-49-6 7575-35-1,
N,N-Bis(2-hydroxyethyl)-p-phenylenediamine 7749-47-5,
2-Amino-4-methoxy-6-methylpyrimidine 7768-28-7, 2-(2-Hydroxyethyl)phenol
13044-92-3, 7-Dimethylamino-2,4,6-heptatrienal 13754-19-3,
4,5-Diaminopyrimidine 14189-80-1 14189-81-2 14189-83-4 14268-66-7,
3,4-Methylenedioxyaniline 16082-33-0, 3,5-Diaminopyrazole 16867-03-1,
2-Amino-3-hydroxypyridine 17774-41-3 19125-78-1 19335-11-6,
5-Aminoindazole 20103-09-7, 2,5-Dichloro-p-phenylenediamine
22715-34-0, 2-Hydroxy-4,5,6-triaminopyrimidine 23244-87-3,
2,4,5-Pyridinetriamine 23894-07-7, 3,6-Dihydroxy-2,7-
naphthalenedisulfonic acid 24119-24-2 25186-34-9, 3-Aminoacrolein

25920-13-2 28020-38-4, 2,3-Diamino-6-methoxypyridine 29539-03-5,
 5,6-Dihydroxyindoline **41927-50-8** 41946-53-6 49647-58-7,
 2,4,5,6-Tetraaminopyrimidine sulfate 53666-79-8 53760-27-3,
 4,4'-Diaminodiphenylamine sulfate 55302-96-0, 2-Methyl-5-(2-
 hydroxyethylamino)phenol 56216-28-5 58064-22-5 58262-44-5
 60159-98-0 61693-42-3 62496-02-0, 2-Methylamino-4,5,6-
 triaminopyrimidine 66566-48-1 66635-40-3 69984-77-6,
 7-Aminobenzimidazole 70643-19-5, 2,4-Diaminophenoxyethanol 74918-21-1
 76319-97-6 79352-72-0 83732-72-3 84540-47-6, 2,6-Dihydroxy-3,4-
 dimethylpyridine 84540-50-1 85679-78-3, 3,5-Diamino-2,6-
 dimethoxypyridine 85926-99-4, 4-Hydroxyindoline 89728-31-4
 90817-34-8, 3-Amino-2-methylamino-6-methoxypyridine 90945-00-9
 93841-24-8, 2-(2,5-Diaminophenyl)ethanol 93841-25-9 104333-09-7
 110102-86-8 114402-54-9 115423-86-4 128729-30-6 130582-56-8
 135043-64-0 137290-86-9 144644-13-3 147920-20-5 159661-42-4
 202525-71-1 202525-73-3 202525-74-4 202525-75-5 202525-76-6
 202525-77-7 202525-78-8 202525-79-9 215377-52-9 215377-53-0
 215377-55-2 215377-56-3 215523-40-3 215523-41-4 215523-42-5
 215523-44-7 215523-54-9

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
 (Uses)

(use of amino vinyl aldehydes and ketones for dyeing **keratin**
 fibers)

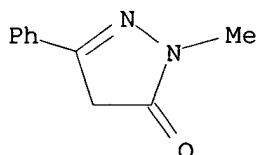
IT **41927-50-8**

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
 (Uses)

(use of amino vinyl aldehydes and ketones for dyeing **keratin**
 fibers)

RN 41927-50-8 HCAPLUS

CN 3H-Pyrazol-3-one, 2,4-dihydro-2-methyl-5-phenyl- (9CI) (CA INDEX NAME)



L11 ANSWER 26 OF 30 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 1998:716117 HCAPLUS

DN 129:347137

TI Ketones and aldehydes for dyeing keratin fibers

IN Moeller, Hinrich; Hoeffkes, Horst; Meinigke, Bernd

PA Henkel Kommanditgesellschaft Auf Aktien, Germany

SO Eur. Pat. Appl., 14 pp.

CODEN: EPXXDW

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 873745	A2	19981028	EP 1998-106833	19980415
	EP 873745	A3	19991222		
	R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO			

KATHLEEN FULLER EIC 1700 REMSEN 4B28 571/272-2505

DE 19717222 A1 19981029 DE 1997-19717222 19970424
PRAI DE 1997-19717222 A 19970424
AB Nonoxidative or oxidative hair dye compns. are provided which contain (a) ≥ 1 ketone and/or aldehyde which dyes hair either alone or in the presence of (b) ≥ 1 compound with a primary or secondary amino or hydroxy group, together with (c) a color-reinforcing agent comprising piperidine, pyridine, imidazole, pyrrolidine, pyrrolidone, pyrazole, triazole, piperidazine, or their derivs. or salts. These compns. provide an intensity and fastness of color comparable to conventional oxidative dyes and cause little or no skin sensitization. These compns. impart hair colors over a wide spectral range, from yellow-orange to brown-black. Thus, a suspension of glutaconaldehyde Na salt 10, 2-(2,5-diaminophenyl)ethanol sulfate 10, piperidine 10, NaOAc 10 mmol, and 1 drop 20% fatty alkyl ether sulfate were suspended in 100 mL H₂O, the suspension was heated briefly to 80°, cooled, and filtered, and the pH was adjusted to 6. Gray hair exposed to this solution for 30 min at 30° took on an intense red-violet color.

IC ICM A61K007-13
CC 62-3 (Essential Oils and **Cosmetics**)
ST ketone amine alc hair dye; aldehyde amine alc hair dye
IT Ketones, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(1,2-diketones; ketones and aldehydes for dyeing keratin fibers)

IT Dicarbonyl compounds
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(1,3-dicarbonyl; ketones and aldehydes for dyeing keratin fibers)

IT Aldehydes, biological studies
Amines, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(aromatic; ketones and aldehydes for dyeing keratin fibers)

IT Amines, biological studies
Amines, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(aryl, secondary; ketones and aldehydes for dyeing keratin fibers)

IT Hair preparations
(dyes, oxidative; ketones and aldehydes for dyeing keratin fibers)

IT Hair preparations
(dyes; ketones and aldehydes for dyeing keratin fibers)

IT Aldehydes, biological studies
Aldehydes, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(heteroaryl; ketones and aldehydes for dyeing keratin fibers)

IT Aldehydes, biological studies
Amino acids, biological studies
Ketones, biological studies
Peptides, biological studies
Phenols, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(ketones and aldehydes for dyeing keratin fibers)

IT Heterocyclic compounds
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(nitrogen; ketones and aldehydes for dyeing keratin fibers)

IT Alcohols, biological studies
Amines, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(primary; ketones and aldehydes for dyeing keratin fibers)

IT Alcohols, biological studies
Amines, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(secondary; ketones and aldehydes for dyeing keratin fibers)

IT 50-71-5, Alloxan 59-48-3, Oxindole 65-49-6, 4-Aminosalicylic acid
67-52-7, Barbituric acid 83-30-7 83-56-7, 1,5-Dihydroxynaphthalene
87-02-5, 7-Amino-4-hydroxynaphthalene-2-sulfonic acid 87-66-1,
Pyrogallol 88-21-1, 2-Aminobenzenesulfonic acid 89-57-6,
5-Aminosalicylic acid 89-86-1, 2,4-Dihydroxybenzoic acid 90-05-1,
2-Methoxyphenol 90-15-3, 1-Naphthol 90-20-0, 4-Amino-5-
hydroxynaphthalene-2,7-disulfonic acid 91-56-5, Isatin 91-56-5D,
Isatin, derivs. 92-44-4, 2,3-Dihydroxynaphthalene 92-65-9 95-54-5,
o-Phenylenediamine, biological studies 95-55-6, 2-Aminophenol 95-70-5,
2,5-Diaminotoluene 95-88-5, 4-Chlororesorcinol 98-37-3,
3-Amino-4-hydroxybenzenesulfonic acid 99-05-8, 3-Aminobenzoic acid
99-07-0, 3-Dimethylaminophenol 99-31-0, 5-Aminoisophthalic acid
99-50-3, 3,4-Dihydroxybenzoic acid 101-77-9, 4,4'-Diaminodiphenylmethane
101-80-4 102-32-9, 3,4-Dihydroxyphenylacetic acid 106-50-3,
1,4-Benzenediamine, biological studies 106-51-4D, p-Quinone, derivs.
108-45-2, 1,3-Benzenediamine, biological studies 108-46-3,
1,3-Benzenediol, biological studies 108-72-5, 1,3,5-Triaminobenzene
108-73-6, Phloroglucinol 110-86-1, Pyridine, biological studies
110-86-1D, Pyridine, derivs., biological studies 110-89-4, Piperidine,
biological studies 110-89-4D, Piperidine, derivs., biological studies
116-63-2 118-70-7, 4,5,6-Triaminopyrimidine 118-92-3, 2-Aminobenzoic
acid 119-59-5, 4,4'-Diaminodiphenyl sulfoxide 119-70-0,
4,4'-Diaminodiphenylamine-2-sulfonic acid 120-80-9, Pyrocatechol,
biological studies 121-47-1, 3-Aminobenzenesulfonic acid 121-57-3,
4-Aminobenzenesulfonic acid 123-30-8 123-31-9, 1,4-Benzenediol,
biological studies 123-75-1, Pyrrolidine, biological studies
123-75-1D, Pyrrolidine, derivs., biological studies 139-65-1,
4,4'-Diaminodiphenyl sulfide 141-84-4, Rhodanine 141-86-6,
2,6-Diaminopyridine 149-91-7, Gallic acid, biological studies 150-13-0
150-19-6, 3-Methoxyphenol 150-75-4, 4-Methylaminophenol 150-76-5,
4-Methoxyphenol 156-81-0, 2,4-Diaminopyrimidine 288-13-1, Pyrazole
288-13-1D, Pyrazole, derivs. 288-32-4, Imidazole, biological studies
288-32-4D, Imidazole, derivs. 452-58-4, 2,3-Diaminopyridine 462-08-8,
3-Aminopyridine 480-66-0 485-47-2, Ninhydrin 485-47-2D, Ninhydrin,
derivs. 488-87-9, 2,5-Dimethylresorcinol 496-73-1, 4-Methylresorcinol
496-76-4, Isobarbituric acid 498-94-2, Piperidine-4-carboxylic acid
504-15-4, 5-Methylresorcinol 504-17-6, Thiobarbituric acid 504-24-5,
4-Aminopyridine 504-29-0, 2-Aminopyridine 505-19-1, Piperidazine
505-19-1D, Piperidazine, derivs. 517-22-6, 2,4-Dimethyl-3-ethylpyrrole
533-31-3, 3,4-Methylenedioxyphenol 533-73-3, Hydroxyhydroquinone
535-87-5, 3,5-Diaminobenzoic acid 537-65-5, 4,4'-Diaminodiphenylamine
578-66-5, 8-Aminoquinoline 580-17-6, 3-Aminoquinoline 580-22-3,
2-Aminoquinoline 582-17-2, 2,7-Dihydroxynaphthalene 583-63-1D,
o-Quinone, derivs. 591-27-5, 3-Aminophenol 603-81-6,
2,3-Diaminobenzoic acid 606-55-3 608-25-3, 2-Methylresorcinol
610-74-2, 2,5-Diaminobenzoic acid 611-03-0, 2,4-Diaminobenzoic acid
611-98-3, 4,4'-Diaminobenzophenone 615-50-9 615-66-7,
2-Chloro-p-phenylenediamine 615-71-4, 1,2,4-Triaminobenzene 616-45-5,
2-Pyrrolidone 619-05-6, 3,4-Diaminobenzoic acid 623-09-6 636-25-9,

2,5-Diaminophenol 934-22-5, 5-Aminobenzimidazole 1004-74-6,
2,4,5,6-Tetraaminopyrimidine 1004-75-7, 4-Hydroxy-2,5,6-
triaminopyrimidine 1123-55-3, 7-Aminobenzothiazole 1125-60-6,
5-Aminoisoquinoline 1197-55-3, 4-Aminophenylacetic acid 1455-77-2,
3,5-Diamino-1,2,4-triazole 1571-72-8, 3-Amino-4-hydroxybenzoic acid
1820-80-0, 3-Aminopyrazole 1953-54-4, 5-Hydroxyindole 2374-03-0,
4-Amino-3-hydroxybenzoic acid 2380-84-9, 7-Hydroxyindole 2380-86-1,
6-Hydroxyindole 2380-94-1, 4-Hydroxyindole 2654-52-6,
2,3-Dimethylbenzothiazolium p-toluenesulfonate 2785-06-0,
2,3-Dimethylbenzothiazolium iodide 2835-95-2, 2-Methyl-5-aminophenol
2835-99-6, 3-Methyl-4-aminophenol 3131-52-0, 5,6-Dihydroxyindole
3158-63-2, 1,3-Dimethylthiobarbituric acid 3167-49-5, 6-Aminonicotinic
acid 3855-78-5, 2,3,4-Trimethylpyrrole 4318-76-7, 2,5-Diaminopyridine
4331-29-7, 4-Aminobenzimidazole 4506-66-5, 1,2,4,5-Tetraaminobenzene
tetrahydrochloride 4928-43-2 5007-67-0, 3,3',4,4'-
Tetraaminobenzophenone 5192-03-0, 5-Aminoindole 5192-04-1,
7-Aminoindole 5192-23-4, 4-Aminoindole 5318-27-4, 6-Aminoindole
5345-47-1, 2-Aminonicotinic acid 5434-20-8, 3-Aminophthalic acid
5718-83-2, Rhodanine-3-acetic acid 5959-52-4, 3-Amino-2-naphthoic acid
6201-65-6, 2-Chlororesorcinol 6259-50-3 6399-72-0 6628-04-2,
4-Aminoquinoline 6967-12-0, 6-Aminoindazole 7169-34-8, Coumaranone
7336-20-1, Disodium 4,4'-diaminostilbene-2,2'-disulfonate 7411-49-6
7575-35-1, N,N-Bis(2-hydroxyethyl)-p-phenylenediamine 7749-47-5,
2-Amino-4-methoxy-6-methylpyrimidine 7768-28-7, 2-(2-Hydroxyethyl)phenol
13754-19-3, 4,5-Diaminopyrimidine 14268-66-7, 3,4-Methylenedioxyaniline
16082-33-0, 3,5-Diaminopyrazole 16867-03-1, 2-Amino-3-hydroxypyridine
19335-11-6, 5-Aminoindazole 20103-09-7, 2,5-Dichloro-p-phenylenediamine
22715-34-0, 2-Hydroxy-4,5,6-triaminopyrimidine 23244-87-3,
2,4,5-Pyridinetriamine 23894-07-7, 3,6-Dihydroxy-2,7-
naphthalenedisulfonic acid 24119-24-2 24290-36-6 25186-34-9D,
3-Aminoacrolein, derivs. 28020-38-4, 2,3-Diamino-6-methoxypyridine
29539-03-5, 5,6-Dihydroxyindoline 37306-44-8, Triazole 37306-44-8D,
Triazole, derivs. **41927-50-8** 41946-53-6 53666-79-8
55302-96-0, 2-Methyl-5-(2-hydroxyethylamino)phenol 56216-28-5
60320-10-7 61693-42-3 62496-02-0, 2-Methylamino-4,5,6-
triaminopyrimidine 66566-48-1 66635-40-3 69984-77-6,
7-Aminobenzimidazole 70643-19-5, 2,4-Diaminophenoxyethanol 74918-21-1
79352-72-0 83732-72-3 84540-47-6, 2,6-Dihydroxy-3,4-dimethylpyridine
84540-50-1 85679-78-3, 3,5-Diamino-2,6-dimethoxypyridine 85926-99-4,
4-Hydroxyindoline 90817-34-8, 3-Amino-2-methylamino-6-methoxypyridine
93841-24-8, 2-(2,5-Diaminophenyl)ethanol 93841-25-9 104333-09-7
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202525-75-5 202525-76-6 202525-77-7 202525-78-8 202525-79-9
215377-52-9 215377-53-0 215377-55-2 215377-56-3

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)

(ketones and aldehydes for dyeing **keratin** fibers)

IT 149-87-1

RL: RCT (Reactant); RACT (Reactant or reagent)

(ketones and aldehydes for dyeing keratin fibers)

IT 144644-13-3

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)

(use of benzylidene ketones for dyeing keratin fibers)

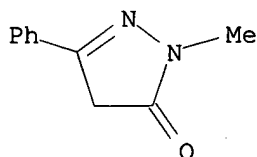
IT **41927-50-8**

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)

(ketones and aldehydes for dyeing **keratin** fibers)

RN 41927-50-8 HCAPLUS

CN 3H-Pyrazol-3-one, 2,4-dihydro-2-methyl-5-phenyl- (9CI) (CA INDEX NAME)



L11 ANSWER 27 OF 30 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 1998:716116 HCAPLUS

DN 129:347136

TI Use of heterocyclic carbonyl compounds for dyeing keratin fibers

IN Moeller, Hinrich; Hoeffkes, Horst; Meinigke, Bernd

PA Henkel Kommanditgesellschaft Auf Aktien, Germany

SO Eur. Pat. Appl., 18 pp.

CODEN: EPXXDW

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 873744	A2	19981028	EP 1998-106832	19980415
	EP 873744	A3	20000628		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, SI, LT, LV, FI, RO				
	DE 19717280	A1	19981029	DE 1997-19717280	19970424
PRAI	DE 1997-19717280	A	19970424		

OS MARPAT 129:347136

AB Heterocyclic carbonyl compds. RXC(O)R1 [R = 5-7-membered (substituted) heterocyclic ring with 1-3 hetero atoms (N, O, S); X = bond, CH:CH; R1 = H, (substituted) C1-6 alkyl] are components of nonoxidative or oxidative hair dyes which provide an intensity and fastness of color comparable to oxidative dyes and cause little or no skin sensitization. These compds. alone impart hair colors mainly in the yellow and red spectral regions; they may be applied together with primary or secondary amines, N-heterocyclic compds., aromatic OH compds., or compds. with active CH groups to produce yellow, orange, brown, and black colorations with improved brilliance and fastness. Thus, a suspension of indole-3-aldehyde 10, 2,5-diaminotoluene sulfate 10, NaOAc 10 mmol, and 1 drop 20% fatty alkyl ether sulfate were suspended in 100 mL H2O, the suspension was heated briefly to 80°, cooled, and filtered, and the pH was adjusted to 6. Gray hair exposed to this solution for 30 min at 30° took on an intense brown color.

IC ICM A61K007-13

CC 62-3 (Essential Oils and **Cosmetics**)

ST heterocyclic carbonyl compd hair dye

IT Amines, biological studies

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(aromatic; use of heterocyclic carbonyl compds. for dyeing keratin fibers)

IT Amines, biological studies

Amines, biological studies

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

- (aryl, secondary; use of heterocyclic carbonyl compds. for dyeing keratin fibers)
- IT Hair preparations
(dyes, oxidative; use of heterocyclic carbonyl compds. for dyeing keratin fibers)
- IT Hair preparations
(dyes; use of heterocyclic carbonyl compds. for dyeing keratin fibers)
- IT Aldehydes, biological studies
Ketones, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(heterocyclic; use of heterocyclic carbonyl compds. for dyeing keratin fibers use of heterocyclic carbonyl compds. for dyeing keratin fibers)
- IT Heterocyclic compounds
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(nitrogen; use of heterocyclic carbonyl compds. for dyeing keratin fibers)
- IT Alcohols, biological studies
Amines, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(primary; use of heterocyclic carbonyl compds. for dyeing keratin fibers)
- IT Alcohols, biological studies
Amines, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(secondary; use of heterocyclic carbonyl compds. for dyeing keratin fibers)
- IT Amino acids, biological studies
Peptides, biological studies
Phenols, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(use of heterocyclic carbonyl compds. for dyeing keratin fibers)
- IT 59-48-3, Oxindole 65-49-6, 4-Aminosalicylic acid 66-72-8, Pyridoxal 67-52-7, Barbituric acid 83-30-7 83-56-7, 1,5-Dihydroxynaphthalene 84-83-3 87-02-5, 7-Amino-4-hydroxynaphthalene-2-sulfonic acid 87-66-1, Pyrogallol 88-21-1, 2-Aminobenzenesulfonic acid 89-57-6, 5-Aminosalicylic acid 89-86-1, 2,4-Dihydroxybenzoic acid 90-05-1, 2-Methoxyphenol 90-15-3, 1-Naphthol 90-20-0, 4-Amino-5-hydroxynaphthalene-2,7-disulfonic acid 92-44-4, 2,3-Dihydroxynaphthalene 92-65-9 95-54-5, o-Phenylenediamine, biological studies 95-55-6, 2-Aminophenol 95-70-5, 2,5-Diaminotoluene 95-88-5, 4-Chlororesorcinol 98-01-1, Furfural, biological studies 98-37-3, 3-Amino-4-hydroxybenzenesulfonic acid 99-05-8, 3-Aminobenzoic acid 99-07-0, 3-Dimethylaminophenol 99-31-0, 5-Aminoisophthalic acid 99-50-3, 3,4-Dihydroxybenzoic acid 101-77-9, 4,4'-Diaminodiphenylmethane 101-80-4 102-32-9, 3,4-Dihydroxyphenylacetic acid 106-50-3, 1,4-Benzenediamine, biological studies 108-45-2, 1,3-Benzenediamine, biological studies 108-46-3, 1,3-Benzenediol, biological studies 108-72-5, 1,3,5-Triaminobenzene 108-73-6, Phloroglucinol 116-63-2 118-70-7, 4,5,6-Triaminopyrimidine 118-92-3, 2-Aminobenzoic acid 119-59-5, 4,4'-Diaminodiphenyl sulfoxide 119-70-0, 4,4'-Diaminodiphenylamine-2-sulfonic acid 120-80-9, Pyrocatechol, biological studies 121-47-1, 3-Aminobenzenesulfonic acid 121-57-3, 4-Aminobenzenesulfonic acid 123-30-8 123-31-9, 1,4-Benzenediol, biological studies 139-65-1, 4,4'-Diaminodiphenyl sulfide 141-84-4,

Rhodanine 141-86-6, 2,6-Diaminopyridine 149-91-7, Gallic acid, biological studies 150-13-0 150-19-6, 3-Methoxyphenol 150-75-4, 4-Methylaminophenol 150-76-5, 4-Methoxyphenol 156-81-0, 2,4-Diaminopyrimidine 326-91-0, 2-Thenoyltrifluoroacetone 350-03-8, 3-Acetylpyridine 452-58-4, 2,3-Diaminopyridine 462-08-8, 3-Aminopyridine 480-66-0 487-89-8, 1H-Indole-3-carboxaldehyde 488-87-9, 2,5-Dimethylresorcinol 496-73-1, 4-Methylresorcinol 500-22-1, 3-Pyridinaldehyde 504-15-4, 5-Methylresorcinol 504-17-6, Thiobarbituric acid 504-24-5, 4-Aminopyridine 504-29-0, 2-Aminopyridine 517-22-6, 2,4-Dimethyl-3-ethylpyrrole 533-31-3, 3,4-Methylenedioxyphenol 533-73-3, Hydroxyhydroquinone 535-87-5, 3,5-Diaminobenzoic acid 537-65-5, 4,4'-Diaminodiphenylamine 578-66-5, 8-Aminoquinoline 580-17-6, 3-Aminoquinoline 580-22-3, 2-Aminoquinoline 582-17-2, 2,7-Dihydroxynaphthalene 591-27-5, 3-Aminophenol 603-81-6, 2,3-Diaminobenzoic acid 606-55-3 608-25-3, 2-Methylresorcinol 610-74-2, 2,5-Diaminobenzoic acid 611-03-0, 2,4-Diaminobenzoic acid 611-98-3, 4,4'-Diaminobenzophenone 615-50-9 615-66-7, 2-Chloro-p-phenylenediamine 615-71-4, 1,2,4-Triaminobenzene 619-05-6, 3,4-Diaminobenzoic acid 623-09-6 623-30-3, 3-(2-Furyl)acrolein 636-25-9, 2,5-Diaminophenol 698-63-5, 5-Nitrofurfural, biological studies 703-80-0, 3-Acetylindole 932-16-1, 1-Methyl-2-acetylpyrrole 934-22-5, 5-Aminobenzimidazole 950-81-2 1004-74-6, 2,4,5,6-Tetraaminopyrimidine 1004-75-7, 4-Hydroxy-2,5,6-triaminopyrimidine 1121-60-4, 2-Pyridinecarboxaldehyde 1122-62-9, 2-Acetylpyridine 1123-55-3, 7-Aminobenzothiazole 1125-60-6, 5-Aminoisoquinoline 1192-58-1 1197-55-3, 4-Aminophenylacetic acid 1455-77-2, 3,5-Diamino-1,2,4-triazole 1571-72-8, 3-Amino-4-hydroxybenzoic acid 1820-80-0, 3-Aminopyrazole 1874-22-2, 3-(5-Nitro-2-furyl)acrolein 1953-54-4, 5-Hydroxyindole 2374-03-0, 4-Amino-3-hydroxybenzoic acid 2380-84-9, 7-Hydroxyindole 2380-86-1, 6-Hydroxyindole 2380-94-1, 4-Hydroxyindole 2654-52-6, 2,3-Dimethylbenzothiazolium p-toluenesulfonate 2785-06-0, 2,3-Dimethylbenzothiazolium iodide 2835-95-2, 2-Methyl-5-aminophenol 2835-99-6, 3-Methyl-4-aminophenol 3131-52-0, 5,6-Dihydroxyindole 3158-63-2, 1,3-Dimethylthiobarbituric acid 3167-49-5, 6-Aminonicotinic acid 3855-78-5, 2,3,4-Trimethylpyrrole 4318-76-7, 2,5-Diaminopyridine 4331-29-7, 4-Aminobenzimidazole 4363-93-3, 4-Quinolinecarboxaldehyde 4506-66-5, 1,2,4,5-Tetraaminobenzene tetrahydrochloride 4928-43-2 5007-67-0, 3,3',4,4'-Tetraaminobenzophenone 5192-03-0, 5-Aminoindole 5192-04-1, 7-Aminoindole 5192-23-4, 4-Aminoindole 5318-27-4, 6-Aminoindole 5345-47-1, 2-Aminonicotinic acid 5416-80-8 5434-20-8, 3-Aminophthalic acid 5718-83-2, Rhodanine-3-acetic acid 5959-52-4, 3-Amino-2-naphthoic acid 6201-65-6, 2-Chlororesorcinol 6259-50-3 6399-72-0 6628-04-2, 4-Aminoquinoline 6967-12-0, 6-Aminoindazole 7169-34-8, Coumaranone 7336-20-1, Disodium 4,4'-diaminostilbene-2,2'-disulfonate 7411-49-6 7575-35-1, N,N-Bis(2-hydroxyethyl)-p-phenylenediamine 7749-47-5, 2-Amino-4-methoxy-6-methylpyrimidine 7768-28-7, 2-(2-Hydroxyethyl)phenol 10111-08-7, 1H-Imidazole-2-carboxaldehyde 13669-42-6, 3-Quinolinecarboxaldehyde 13754-19-3, 4,5-Diaminopyrimidine 14268-66-7, 3,4-Methylenedioxyaniline 16082-33-0, 3,5-Diaminopyrazole 16867-03-1, 2-Amino-3-hydroxypyridine 17422-74-1 19005-93-7, 1H-Indole-2-carboxaldehyde 19012-02-3, 1-Methyl-3-acetylindole 19012-03-4 19335-11-6, 5-Aminoindazole 20103-09-7, 2,5-Dichloro-p-phenylenediamine 22715-34-0, 2-Hydroxy-4,5,6-triaminopyrimidine 22948-94-3 23244-87-3, 2,4,5-Pyridinetriamine 23894-07-7, 3,6-Dihydroxy-2,7-naphthalenedisulfonic acid 24119-24-2 28020-38-4, 2,3-Diamino-6-methoxypyridine 29539-03-5, 5,6-Dihydroxyindoline 29788-34-9 41927-50-8 41946-53-6 49647-58-7, 2,4,5,6-Tetraaminopyrimidine

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 55302-96-0, 2-Methyl-5-(2-hydroxyethylamino)phenol 56216-28-5
 58262-44-5 61693-42-3 62496-02-0, 2-Methylamino-4,5,6-
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 7-Aminobenzimidazole 70643-19-5, 2,4-Diaminophenoxyethanol 74918-21-1
 79352-72-0 83732-72-3 84540-47-6, 2,6-Dihydroxy-3,4-dimethylpyridine
 84540-50-1 85679-78-3, 3,5-Diamino-2,6-dimethoxypyridine 85926-99-4,
 4-Hydroxyindoline 90817-34-8, 3-Amino-2-methylamino-6-methoxypyridine
 93841-24-8, 2-(2,5-Diaminophenyl)ethanol 93841-25-9 104333-09-7
 110102-86-8 111423-75-7 114402-54-9 115423-86-4 128729-30-6
 130582-56-8 135043-64-0 137290-86-9 144644-13-3 159661-42-4
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 202525-77-7 202525-78-8 202525-79-9 215377-52-9 215377-53-0
 215377-55-2 215377-56-3

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
 (Uses)

(use of heterocyclic carbonyl compds. for dyeing **keratin**
 fibers)

IT 88-15-3, 2-Acetylthiophene 98-03-3, 2-Thiophenecarboxaldehyde
 872-85-5, Pyridine-4-aldehyde 876-87-9 1072-83-9, 2-Acetylpyrrole
 5217-47-0, 1,3-Diethylthiobarbituric acid 39511-08-5,
 trans- β -(2-Furyl)acrolein 50994-40-6, p-Phenylenediamine sulfate
 RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
 (Uses)

(use of heterocyclic carbonyl compds. for dyeing keratin fibers use of
 heterocyclic carbonyl compds. for dyeing keratin fibers)

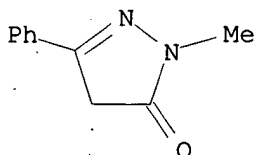
IT 41927-50-8

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
 (Uses)

(use of heterocyclic carbonyl compds. for dyeing **keratin**
 fibers)

RN 41927-50-8 HCAPLUS

CN 3H-Pyrazol-3-one, 2,4-dihydro-2-methyl-5-phenyl- (9CI) (CA INDEX NAME)



L11 ANSWER 28 OF 30 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 1998:716115 HCAPLUS

DN 129:347135

TI Use of benzylidene ketones for dyeing keratin fibers

IN Moeller, Hinrich; Hoeffkes, Horst; Meinigke, Bernd

PA Henkel Kommanditgesellschaft Auf Aktien, Germany

SO Eur. Pat. Appl., 15 pp.

CODEN: EPXXDW

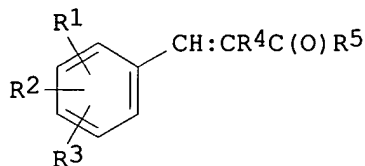
DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 873743	A2	19981028	EP 1998-106831	19980415
	EP 873743	A3	19991215		

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, SI, LT, LV, FI, RO
 DE 19717281 A1 19981029 DE 1997-19717281 19970424
 PRAI DE 1997-19717281 A 19970424
 OS MARPAT 129:347135
 GI



AB Benzylidene ketones [I; R1-R3 = H, halo, alkyl, hydroxyalkyl, aminoalkyl, alkoxy, (hydroxy)alkylamino, N-heterocyclyl, NO₂, CO₂H, SO₃H; R4 = H, C1-4 alkyl, C1-4 acyl; R5 = C1-4 alkyl; or R4R5 = (substituted) C1-5 alkylene] are components of nonoxidative or oxidative hair dyes which provide an intensity and fastness of color comparable to oxidative dyes and cause little or no skin sensitization. I alone impart hair colors mainly in the yellow spectral region; I may be applied together with primary or secondary amines, N-heterocyclic compds., aromatic OH compds., or compds. with active CH groups to produce orange, brown, violet, green, and black coloration. Thus, a suspension of 3,4-methylenedioxybenzylideneacetone 10, 2,5-diaminotoluene sulfate 10, NaOAc 10 mmol, and 1 drop 20% fatty alkyl ether sulfate were suspended in 100 mL H₂O, the suspension was heated briefly to 80°, cooled, and filtered, and the pH was adjusted to 6. Gray hair exposed to this solution for 30 min at 30° took on a violet color.

IC ICM A61K007-13

CC 62-3 (Essential Oils and **Cosmetics**)

ST benzylidene ketone hair dye

IT Amines, biological studies

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(aromatic; use of benzylidene ketones for dyeing keratin fibers)

IT Amines, biological studies

Amines, biological studies

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(aryl, secondary; use of benzylidene ketones for dyeing keratin fibers)

IT Hair preparations

(dyes, oxidative; use of benzylidene ketones for dyeing keratin fibers)

IT Hair preparations

(dyes; use of benzylidene ketones for dyeing keratin fibers)

IT Heterocyclic compounds

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(nitrogen; use of benzylidene ketones for dyeing keratin fibers)

IT Alcohols, biological studies

Amines, biological studies

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(primary; use of benzylidene ketones for dyeing keratin fibers)

IT Alcohols, biological studies

Amines, biological studies

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(secondary; use of benzylidene ketones for dyeing keratin fibers)

IT Amino acids, biological studies

Peptides, biological studies

Phenols, biological studies

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(use of benzylidene ketones for dyeing keratin fibers)

IT 59-48-3, Oxindole 65-49-6, 4-Aminosalicylic acid 67-52-7, Barbituric acid 83-30-7 83-56-7, 1,5-Dihydroxynaphthalene 87-02-5, 7-Amino-4-hydroxynaphthalene-2-sulfonic acid 87-66-1, Pyrogallol 88-21-1, 2-Aminobenzenesulfonic acid 89-57-6, 5-Aminosalicylic acid 89-86-1, 2,4-Dihydroxybenzoic acid 90-05-1, 2-Methoxyphenol 90-15-3, 1-Naphthol 90-20-0, 4-Amino-5-hydroxynaphthalene-2,7-disulfonic acid 92-44-4, 2,3-Dihydroxynaphthalene 92-65-9 95-54-5, o-Phenylenediamine, biological studies 95-55-6, 2-Aminophenol 95-70-5, 2,5-Diaminotoluene 95-88-5, 4-Chlororesorcinol 98-37-3, 3-Amino-4-hydroxybenzenesulfonic acid 99-05-8, 3-Aminobenzoic acid 99-07-0, 3-Dimethylaminophenol 99-31-0, 5-Aminoisophthalic acid 99-50-3, 3,4-Dihydroxybenzoic acid 101-77-9, 4,4'-Diaminodiphenylmethane 101-80-4 102-32-9, 3,4-Dihydroxyphenylacetic acid 106-50-3, 1,4-Benzenediamine, biological studies 108-45-2, 1,3-Benzenediamine, biological studies 108-46-3, 1,3-Benzenediol, biological studies 108-72-5, 1,3,5-Triaminobenzene 108-73-6, Phloroglucinol 118-70-7, 4,5,6-Triaminopyrimidine 118-92-3, 2-Aminobenzoic acid 119-59-5, 4,4'-Diaminodiphenyl sulfoxide 119-70-0, 4,4'-Diaminodiphenylamine-2-sulfonic acid 120-80-9, Pyrocatechol, biological studies 121-47-1, 3-Aminobenzenesulfonic acid 121-57-3, 4-Aminobenzenesulfonic acid 122-57-6, Benzylideneacetone 123-30-8 123-31-9, 1,4-Benzenediol, biological studies 139-65-1, 4,4'-Diaminodiphenyl sulfide 141-84-4, Rhodanine 141-86-6, 2,6-Diaminopyridine 149-91-7, Gallic acid, biological studies 150-13-0 150-19-6, 3-Methoxyphenol 150-75-4, 4-Methylaminophenol 150-76-5, 4-Methoxyphenol 156-81-0, 2,4-Diaminopyrimidine 452-58-4, 2,3-Diaminopyridine 462-08-8, 3-Aminopyridine 480-66-0 488-87-9, 2,5-Dimethylresorcinol 496-73-1, 4-Methylresorcinol 504-15-4, 5-Methylresorcinol 504-17-6, Thiobarbituric acid 504-24-5, 4-Aminopyridine 504-29-0, 2-Aminopyridine 517-22-6, 2,4-Dimethyl-3-ethylpyrrole 533-31-3, 3,4-Methylenedioxyphenol 533-73-3, Hydroxyhydroquinone 535-87-5, 3,5-Diaminobenzoic acid 537-65-5, 4,4'-Diaminodiphenylamine 578-66-5, 8-Aminoquinoline 580-17-6, 3-Aminoquinoline 580-22-3, 2-Aminoquinoline 582-17-2, 2,7-Dihydroxynaphthalene 591-27-5, 3-Aminophenol 603-81-6, 2,3-Diaminobenzoic acid 606-55-3 608-25-3, 2-Methylresorcinol 610-74-2, 2,5-Diaminobenzoic acid 611-03-0, 2,4-Diaminobenzoic acid 611-98-3, 4,4'-Diaminobenzophenone 615-50-9 615-66-7, 2-Chloro-p-phenylenediamine 615-71-4, 1,2,4-Triaminobenzene 619-05-6, 3,4-Diaminobenzoic acid 623-09-6 636-25-9, 2,5-Diaminophenol 876-87-9 934-22-5, 5-Aminobenzimidazole 943-88-4, 4-Methoxybenzylideneacetone 1004-74-6, 2,4,5,6-Tetraaminopyrimidine 1004-75-7, 4-Hydroxy-2,5,6-triaminopyrimidine 1080-12-2, 4-Hydroxy-3-methoxybenzylideneacetone 1123-55-3, 7-Aminobenzothiazole 1125-60-6, 5-Aminoisoquinoline 1197-55-3, 4-Aminophenylacetic acid 1455-77-2, 3,5-Diamino-1,2,4-triazole 1571-72-8, 3-Amino-4-hydroxybenzoic acid 1820-80-0, 3-Aminopyrazole 1953-54-4, 5-Hydroxyindole 2374-03-0, 4-Amino-3-hydroxybenzoic acid 2380-84-9, 7-Hydroxyindole 2380-86-1, 6-Hydroxyindole 2380-94-1, 4-Hydroxyindole 2654-52-6, 2,3-Dimethylbenzothiazolium p-toluenesulfonate 2785-06-0, 2,3-Dimethylbenzothiazolium iodide 2835-95-2, 2-Methyl-5-aminophenol

2835-99-6, 3-Methyl-4-aminophenol 3131-52-0, 5,6-Dihydroxyindole
3158-63-2, 1,3-Dimethylthiobarbituric acid 3160-35-8 3160-37-0
3167-49-5, 6-Aminonicotinic acid 3855-78-5, 2,3,4-Trimethylpyrrole
4318-76-7, 2,5-Diaminopyridine 4331-29-7, 4-Aminobenzimidazole
4335-90-4, 3-Benzylidene-2,4-pentanedione 4506-66-5,
1,2,4,5-Tetraaminobenzene tetrahydrochloride 4928-43-2 5007-67-0,
3,3',4,4'-Tetraaminobenzophenone 5192-03-0, 5-Aminoindole 5192-04-1,
7-Aminoindole 5192-23-4, 4-Aminoindole 5217-47-0, 1,3-
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5679-13-0, 2-Benzylidenecyclopentanone 5682-83-7, 2-
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13754-19-3, 4,5-Diaminopyrimidine 14268-66-7, 3,4-Methylenedioxyaniline
16082-33-0, 3,5-Diaminopyrazole 16867-03-1, 2-Amino-3-hydroxypyridine
17792-58-4 19335-11-6, 5-Aminoindazole 20103-09-7,
2,5-Dichloro-p-phenylenediamine 22715-34-0, 2-Hydroxy-4,5,6-
triaminopyrimidine 23244-87-3, 2,4,5-Pyridinetriamine 23894-07-7,
3,6-Dihydroxy-2,7-naphthalenedisulfonic acid 24119-24-2 28020-38-4,
2,3-Diamino-6-methoxypyridine 29539-03-5, 5,6-Dihydroxyindoline
41927-50-8 41946-53-6 42426-35-7 49647-58-7,
2,4,5,6-Tetraaminopyrimidine sulfate 53666-79-8 53760-27-3,
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RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)

(use of benzylidene ketones for dyeing **keratin** fibers)

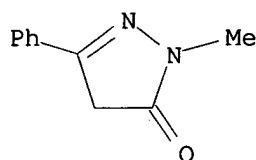
IT **41927-50-8**

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)

(use of benzylidene ketones for dyeing **keratin** fibers)

RN 41927-50-8 HCAPLUS

CN 3H-Pyrazol-3-one, 2,4-dihydro-2-methyl-5-phenyl- (9CI) (CA INDEX NAME)



L11 ANSWER 29 OF 30 HCAPLUS COPYRIGHT 2005 ACS on STN
 AN 1998:708908 HCAPLUS
 DN 129:347134
 TI Use of unsaturated aldehydes in dyeing keratin fibers
 IN Moeller, Hinrich; Hoeffkes, Horst
 PA Henkel Kommanditgesellschaft Auf Aktien, Germany
 SO PCT Int. Appl., 35 pp.
 CODEN: PIXXD2

DT Patent
 LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9847473	A1	19981029	WO 1998-EP2243	19980416
	W: AU, BR, CA, CN, CZ, HU, JP, NO, PL, RU, SK, US, VN RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
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	CA 2288055	AA	19981029	CA 1998-2288055	19980416
	AU 9875264	A1	19981113	AU 1998-75264	19980416
	AU 726113	B2	20001102		
	EP 977546	A1	20000209	EP 1998-922727	19980416
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	NO 9905157	A	19991022	NO 1999-5157	19991022
PRAI	DE 1997-19717224	A	19970424		
	WO 1998-EP2243	W	19980416		

OS MARPAT 129:347134

AB Unsatd. aldehydes, $\text{HCO}(\text{CR}_1:\text{CR}_2)\text{nCHR}_3\text{C}(\text{O})\text{R}_4$ +
 $\text{HCO}(\text{CR}_1:\text{CR}_2)\text{nCR}_3:\text{C}(\text{OH})\text{R}_4$ (I; $\text{R}_1\text{-R}_4 = \text{H}$, halo, alkyl, alkoxy, aryl, alkoxyaryl; $\text{n} = 1, 2$; if $\text{n} = 1$, R_1 and R_2 , R_1 and R_3 , R_2 and R_3 , or R_2 and R_4 may together form a 5-7-membered ring) and the corresponding acetals are components of nonoxidative or oxidative hair dyes which provide an intensity and fastness of color comparable to oxidative dyes and cause little or no skin sensitization. I alone impart hair colors mainly in the yellow and red spectral regions; I may be applied together with primary or secondary amines, N-heterocyclic compds., aromatic OH compds., or compds. with active CH groups to produce yellow, orange, red, brown, blue, and black colorations. Thus, 2-chloro-1-formyl-3-hydroxymethylenecyclohexene 10, 2-(2,5-diaminophenyl)ethanol sulfate 10, NaOAc 10 mmol, and 1 drop 20% fatty alkyl ether sulfate were suspended in 100 mL H_2O , the suspension was heated briefly to 80° , cooled, and filtered, and the pH was adjusted to 6. Gray hair exposed to this solution for 30 min at 30° took on a violet-blue color.

IC ICM A61K007-13

CC 62-3 (Essential Oils and Cosmetics)

ST unsatd aldehyde hair dye

IT Amines, biological studies

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(aromatic; use of unsatd. aldehydes in dyeing keratin fibers)

IT Amines, biological studies
Amines, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(aryl, secondary; use of unsatd. aldehydes in dyeing keratin fibers)

IT Hair preparations
(dyes, oxidative; use of unsatd. aldehydes in dyeing keratin fibers)

IT Hair preparations
(dyes; use of unsatd. aldehydes in dyeing keratin fibers)

IT Heterocyclic compounds
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(nitrogen; use of unsatd. aldehydes in dyeing keratin fibers)

IT Alcohols, biological studies
Amines, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(primary; use of unsatd. aldehydes in dyeing keratin fibers)

IT Alcohols, biological studies
Amines, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(secondary; use of unsatd. aldehydes in dyeing keratin fibers)

IT Acetals
Aldehydes, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(unsatd.; use of unsatd. aldehydes in dyeing keratin fibers)

IT Amino acids, biological studies
Peptides, biological studies
Phenols, biological studies
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(use of unsatd. aldehydes in dyeing keratin fibers)

IT 144644-13-3
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
(Uses)
(use of benzylidene ketones for dyeing keratin fibers)

IT 56-87-1, L-Lysine, biological studies 59-48-3, Oxindole 65-49-6,
4-Aminosalicylic acid 67-52-7, Barbituric acid 71-00-1, L-Histidine,
biological studies 83-30-7 83-56-7, 1,5-Dihydroxynaphthalene
87-02-5, 7-Amino-4-hydroxynaphthalene-2-sulfonic acid 87-66-1,
Pyrogallol 88-21-1, 2-Aminobenzenesulfonic acid 89-25-8 89-57-6,
5-Aminosalicylic acid 89-86-1, 2,4-Dihydroxybenzoic acid 90-05-1,
2-Methoxyphenol 90-15-3, 1-Naphthol 90-20-0, 4-Amino-5-
hydroxynaphthalene-2,7-disulfonic acid 92-44-4, 2,3-Dihydroxynaphthalene
95-54-5, o-Phenylenediamine, biological studies 95-55-6, 2-Aminophenol
95-70-5, 2,5-Diaminotoluene 95-88-5, 4-Chlororesorcinol 98-37-3,
3-Amino-4-hydroxybenzenesulfonic acid 99-05-8, 3-Aminobenzoic acid
99-07-0, 3-Dimethylaminophenol 99-31-0, 5-Aminoisophthalic acid
99-50-3, 3,4-Dihydroxybenzoic acid 101-77-9, 4,4'-Diaminodiphenylmethane
101-80-4 102-32-9, 3,4-Dihydroxyphenylacetic acid 106-50-3,
1,4-Benzenediamine, biological studies 108-45-2, 1,3-Benzenediamine,
biological studies 108-46-3, 1,3-Benzenediol, biological studies
108-72-5, 1,3,5-Triaminobenzene 108-73-6, Phloroglucinol 116-63-2
118-70-7, 4,5,6-Triaminopyrimidine 118-92-3, 2-Aminobenzoic acid

119-59-5, 4,4'-Diaminodiphenyl sulfoxide 119-70-0, 4,4'-
Diaminodiphenylamine-2-sulfonic acid 120-80-9, Pyrocatechol, biological
studies 121-47-1, 3-Aminobenzenesulfonic acid 121-57-3,
4-Aminobenzenesulfonic acid 123-30-8 123-31-9, 1,4-Benzenediol,
biological studies 139-65-1, 4,4'-Diaminodiphenyl sulfide 141-84-4,
Rhodanine 141-86-6, 2,6-Diaminopyridine 147-85-3, L-Proline,
biological studies 149-91-7, Gallic acid, biological studies 150-13-0
150-19-6, 3-Methoxyphenol 150-75-4, 4-Methylaminophenol 150-76-5,
4-Methoxyphenol 156-81-0, 2,4-Diaminopyrimidine 452-58-4,
2,3-Diaminopyridine 462-08-8, 3-Aminopyridine 480-66-0 488-87-9,
2,5-Dimethylresorcinol 496-73-1, 4-Methylresorcinol 504-15-4,
5-Methylresorcinol 504-17-6, Thiobarbituric acid 504-24-5,
4-Aminopyridine 504-29-0, 2-Aminopyridine 517-22-6,
2,4-Dimethyl-3-ethylpyrrole 533-31-3, 3,4-Methylenedioxyphenol
533-73-3, Hydroxyhydroquinone 535-87-5, 3,5-Diaminobenzoic acid
537-65-5, 4,4'-Diaminodiphenylamine 578-66-5, 8-Aminoquinoline
580-17-6, 3-Aminoquinoline 580-22-3, 2-Aminoquinoline 582-17-2,
2,7-Dihydroxynaphthalene 591-27-5, 3-Aminophenol 603-81-6,
2,3-Diaminobenzoic acid 606-55-3 608-25-3, 2-Methylresorcinol
610-74-2, 2,5-Diaminobenzoic acid 611-03-0, 2,4-Diaminobenzoic acid
611-98-3, 4,4'-Diaminobenzophenone 615-50-9 615-66-7,
2-Chloro-p-phenylenediamine 615-71-4, 1,2,4-Triaminobenzene 619-05-6,
3,4-Diaminobenzoic acid 623-09-6 636-25-9, 2,5-Diaminophenol
821-42-1, Glutaconaldehyde 876-87-9 934-22-5, 5-Aminobenzimidazole
1004-74-6, 2,4,5,6-Tetraaminopyrimidine 1004-75-7, 4-Hydroxy-2,5,6-
triaminopyrimidine 1123-55-3, 7-Aminobenzothiazole 1125-60-6,
5-Aminoisoquinoline 1197-55-3, 4-Aminophenylacetic acid 1455-77-2,
3,5-Diamino-1,2,4-triazole 1571-72-8, 3-Amino-4-hydroxybenzoic acid
1820-80-0, 3-Aminopyrazole 1953-54-4, 5-Hydroxyindole 2374-03-0,
4-Amino-3-hydroxybenzoic acid 2380-84-9, 7-Hydroxyindole 2380-86-1,
6-Hydroxyindole 2380-94-1, 4-Hydroxyindole 2654-52-6,
2,3-Dimethylbenzothiazolium p-toluenesulfonate 2785-06-0,
2,3-Dimethylbenzothiazolium iodide 2835-95-2, 2-Methyl-5-aminophenol
2835-99-6, 3-Methyl-4-aminophenol 3131-52-0, 5,6-Dihydroxyindole
3158-63-2, 1,3-Dimethylthiobarbituric acid 3167-49-5, 6-Aminonicotinic
acid 3855-78-5, 2,3,4-Trimethylpyrrole 4318-76-7, 2,5-Diaminopyridine
4331-29-7, 4-Aminobenzimidazole 4506-66-5, 1,2,4,5-Tetraaminobenzene
tetrahydrochloride 4928-43-2 5007-67-0, 3,3',4,4'-
Tetraaminobenzophenone 5192-03-0, 5-Aminoindole 5192-04-1,
7-Aminoindole 5192-23-4, 4-Aminoindole 5217-47-0, 1,3-
Diethylthiobarbituric acid 5318-27-4, 6-Aminoindole 5345-47-1,
2-Aminonicotinic acid 5434-20-8, 3-Aminophthalic acid 5718-83-2,
Rhodanine-3-acetic acid 5959-52-4, 3-Amino-2-naphthoic acid 6201-65-6,
2-Chlororesorcinol 6259-50-3 6399-72-0 6628-04-2, 4-Aminoquinoline
6967-12-0, 6-Aminoindazole 7169-34-8, Coumaranone 7336-20-1, Disodium
4,4'-diaminostilbene-2,2'-disulfonate 7411-49-6 7575-35-1,
N,N-Bis(2-hydroxyethyl)-p-phenylenediamine 7749-47-5,
2-Amino-4-methoxy-6-methylpyrimidine 7768-28-7, 2-(2-Hydroxyethyl)phenol
13754-19-3, 4,5-Diaminopyrimidine 14268-66-7, 3,4-Methylenedioxyaniline
16082-33-0, 3,5-Diaminopyrazole 16867-03-1, 2-Amino-3-hydroxypyridine
19298-14-7, N-(2-Hydroxyethyl)-p-phenylenediamine 19335-11-6,
5-Aminoindazole 20103-09-7, 2,5-Dichloro-p-phenylenediamine
22715-34-0, 2-Hydroxy-4,5,6-triaminopyrimidine 23244-87-3,
2,4,5-Pyridinetriamine 23894-07-7, 3,6-Dihydroxy-2,7-
naphthalenedisulfonic acid 24119-24-2 24290-36-6 28020-38-4,
2,3-Diamino-6-methoxypyridine 29539-03-5, 5,6-Dihydroxyindoline
41927-50-8 41946-53-6 49647-58-7, 2,4,5,6-Tetraaminopyrimidine
sulfate 53666-79-8 53760-27-3, 4,4'-Diaminodiphenylamine sulfate
55302-96-0, 2-Methyl-5-(2-hydroxyethylamino)phenol 56216-28-5

58262-44-5 61010-04-6, 2-Chloro-1-formyl-3-hydroxymethylenecyclohexene
 61693-42-3 62496-02-0, 2-Methylamino-4,5,6-triaminopyrimidine
 66566-48-1 66635-40-3 69984-77-6, 7-Aminobenzimidazole 70643-19-5,
 2,4-Diaminophenoxyethanol 74918-21-1 79352-72-0 83732-72-3
 84540-47-6, 2,6-Dihydroxy-3,4-dimethylpyridine 84540-50-1 85006-05-9
 85679-78-3, 3,5-Diamino-2,6-dimethoxypyridine 85926-99-4,
 4-Hydroxyindoline 90817-34-8, 3-Amino-2-methylamino-6-methoxypyridine
 93841-24-8, 2-(2,5-Diaminophenyl)ethanol 93841-25-9 100524-00-3
 104333-09-7 110102-86-8 114402-54-9 115423-86-4 128729-30-6
 130582-56-8 135043-64-0 137290-86-9 159661-42-4 162411-49-6
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 202525-77-7 202525-78-8 202525-79-9 215377-52-9 215377-53-0
 215377-55-2 215377-56-3 215525-22-7

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
 (Uses)

(use of unsatd. aldehydes in dyeing **keratin** fibers)

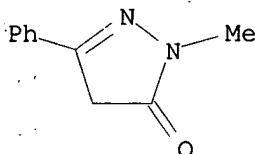
IT **41927-50-8**

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
 (Uses)

(use of unsatd. aldehydes in dyeing **keratin** fibers)

RN 41927-50-8 HCAPLUS

CN 3H-Pyrazol-3-one, 2,4-dihydro-2-methyl-5-phenyl- (9CI) (CA INDEX NAME)



RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 30 OF 30 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 1998:708907 HCAPLUS

DN 129:347133

TI Use of 1-substituted isatins to dye fibers containing keratin

IN Moeller, Hinrich; Rose, David; Hoeffkes, Horst; Meinigke, Bernd

PA Henkel Kommanditgesellschaft Auf Aktien, Germany

SO PCT Int. Appl., 39 pp.

CODEN: PIXXD2

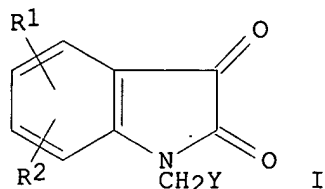
DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9847472	A1	19981029	WO 1998-EP2199	19980415
	W: AU, BR, CA, CN, CZ, HU, JP, NO, PL, RU, SK, US, VN				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	DE 19717282	A1	19981029	DE 1997-19717282	19970424
	AU 9873353	A1	19981113	AU 1998-73353	19980415
	EP 977545	A1	20000209	EP 1998-920524	19980415
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, FI				
	JP 2001521559	T2	20011106	JP 1998-540921	19980415
	US 6203579	B1	20010320	US 1999-403726	19991022
PRAI	DE 1997-19717282	A	19970424		

WO 1998-EP2199 W 19980415
OS MARPAT 129:347133
GI



AB Isatin derivs. [I; R1, R2 = H, halo, OH, Cl-4 alkyl, hydroxyalkyl, tertiary aminoalkyl, alkoxy, (substituted) amino, NO2, CO2H, SO3H; Y = OH, Cl-4 alkoxy, (substituted) amino, 5-7-membered heterocyclyl] are components of nonoxidative or oxidative hair dyes,. I alone impart hair colors mainly in the yellow spectral region; I may be applied together with primary or secondary amines, N-heterocyclic compds., aromatic OH compds., or compds. with active CH groups to produce intense orange, brown, violet, and black colorations in a variety of hues. Thus, 1-pyrrolidinomethylisatin 10, 1,8-bis(2,5-diaminophenoxy)-3,6-dioxaoctane-4HCl 10, NaOAc 10 mmol, and 1 drop 20% fatty alkyl ether sulfate were suspended in 100 mL H2O, the suspension was heated briefly to 80°, cooled, and filtered, and the pH was adjusted to 6. Gray hair exposed to this solution for 30 min at 30° took on a reddish-violet color.

IC ICM A61K007-13

CC 62-3 (Essential Oils and **Cosmetics**)

ST isatin deriv hair dye

IT Amines, biological studies

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(aromatic; use of substituted isatins to dye keratin fibers)

IT Amines, biological studies

Amines, biological studies

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(aryl, secondary; use of substituted isatins to dye keratin fibers)

IT Hair preparations

(dyes, oxidative; use of substituted isatins to dye keratin fibers)

IT Hair preparations

(dyes; use of substituted isatins to dye keratin fibers)

IT Heterocyclic compounds

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(nitrogen; use of substituted isatins to dye keratin fibers)

IT Alcohols, biological studies

Amines, biological studies

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(primary; use of substituted isatins to dye keratin fibers)

IT Alcohols, biological studies

Amines, biological studies

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(secondary; use of substituted isatins to dye keratin fibers)

IT Amino acids, biological studies

Peptides, biological studies

Phenols, biological studies

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(use of substituted isatins to dye keratin fibers)

IT 59-48-3, Oxindole 65-49-6, 4-Aminosalicylic acid 67-52-7, Barbituric acid 83-30-7 83-56-7, 1,5-Dihydroxynaphthalene 87-02-5, 7-Amino-4-hydroxynaphthalene-2-sulfonic acid 87-66-1, Pyrogallol 88-21-1, 2-Aminobenzenesulfonic acid 89-57-6, 5-Aminosalicylic acid 89-86-1, 2,4-Dihydroxybenzoic acid 90-05-1, 2-Methoxyphenol 90-15-3, 1-Naphthol 90-20-0, 4-Amino-5-hydroxynaphthalene-2,7-disulfonic acid 92-44-4, 2,3-Dihydroxynaphthalene 92-65-9 95-54-5, o-Phenylenediamine, biological studies 95-55-6, 2-Aminophenol 95-70-5, 2,5-Diaminotoluene 95-88-5, 4-Chlororesorcinol 98-37-3, 3-Amino-4-hydroxybenzenesulfonic acid 99-05-8, 3-Aminobenzoic acid 99-07-0, 3-Dimethylaminophenol 99-31-0, 5-Aminoisophthalic acid 99-50-3, 3,4-Dihydroxybenzoic acid 101-77-9, 4,4'-Diaminodiphenylmethane 101-80-4 102-32-9, 3,4-Dihydroxyphenylacetic acid 106-50-3, 1,4-Benzenediamine, biological studies 108-45-2, 1,3-Benzenediamine, biological studies 108-46-3, 1,3-Benzenediol, biological studies 108-72-5, 1,3,5-Triaminobenzene 108-73-6, Phloroglucinol 116-63-2 118-70-7, 4,5,6-Triaminopyrimidine 118-92-3, 2-Aminobenzoic acid 119-59-5, 4,4'-Diaminodiphenyl sulfoxide 119-70-0, 4,4'-Diaminodiphenylamine-2-sulfonic acid 120-80-9, Pyrocatechol, biological studies 121-47-1, 3-Aminobenzenesulfonic acid 121-57-3, 4-Aminobenzenesulfonic acid 123-30-8 123-31-9, 1,4-Benzenediol, biological studies 139-65-1, 4,4'-Diaminodiphenyl sulfide 141-84-4, Rhodanine 141-86-6, 2,6-Diaminopyridine 149-91-7, Gallic acid, biological studies 150-13-0 150-19-6, 3-Methoxyphenol 150-75-4, 4-Methylaminophenol 150-76-5, 4-Methoxyphenol 156-81-0, 2,4-Diaminopyrimidine 452-58-4, 2,3-Diaminopyridine 462-08-8, 3-Aminopyridine 480-66-0 488-87-9, 2,5-Dimethylresorcinol 496-73-1, 4-Methylresorcinol 504-15-4, 5-Methylresorcinol 504-17-6, Thiobarbituric acid 504-24-5, 4-Aminopyridine 504-29-0, 2-Aminopyridine 517-22-6, 2,4-Dimethyl-3-ethylpyrrole 533-31-3, 3,4-Methylenedioxyphenol 533-73-3, Hydroxyhydroquinone 535-87-5, 3,5-Diaminobenzoic acid 537-65-5, 4,4'-Diaminodiphenylamine 578-66-5, 8-Aminoquinoline 580-17-6, 3-Aminoquinoline 580-22-3, 2-Aminoquinoline 582-17-2, 2,7-Dihydroxynaphthalene 591-27-5, 3-Aminophenol 603-81-6, 2,3-Diaminobenzoic acid 606-55-3 608-25-3, 2-Methylresorcinol 610-74-2, 2,5-Diaminobenzoic acid 611-03-0, 2,4-Diaminobenzoic acid 611-98-3, 4,4'-Diaminobenzophenone 615-50-9 615-66-7, 2-Chloro-p-phenylenediamine 615-71-4, 1,2,4-Triaminobenzene 619-05-6, 3,4-Diaminobenzoic acid 623-09-6 636-25-9, 2,5-Diaminophenol 876-87-9 934-22-5, 5-Aminobenzimidazole 1004-74-6, 2,4,5,6-Tetraaminopyrimidine 1004-75-7, 4-Hydroxy-2,5,6-triaminopyrimidine 1123-55-3, 7-Aminobenzothiazole 1125-60-6, 5-Aminoisoquinoline 1197-55-3, 4-Aminophenylacetic acid 1455-77-2, 3,5-Diamino-1,2,4-triazole 1571-72-8, 3-Amino-4-hydroxybenzoic acid 1820-80-0, 3-Aminopyrazole 1953-54-4, 5-Hydroxyindole 2374-03-0, 4-Amino-3-hydroxybenzoic acid 2380-84-9, 7-Hydroxyindole 2380-86-1, 6-Hydroxyindole 2380-94-1, 4-Hydroxyindole 2654-52-6, 2,3-Dimethylbenzothiazolium p-toluenesulfonate 2785-06-0, 2,3-Dimethylbenzothiazolium iodide 2835-95-2, 2-Methyl-5-aminophenol 2835-99-6, 3-Methyl-4-aminophenol 3131-52-0, 5,6-Dihydroxyindole 3158-63-2, 1,3-Dimethylthiobarbituric acid 3167-49-5, 6-Aminonicotinic acid 3855-78-5, 2,3,4-Trimethylpyrrole 4318-76-7, 2,5-Diaminopyridine 4331-29-7, 4-Aminobenzimidazole 4506-66-5, 1,2,4,5-Tetraaminobenzene tetrahydrochloride 4928-43-2 5007-67-0, 3,3',4,4'-Tetraaminobenzophenone 5192-03-0, 5-Aminoindole 5192-04-1,

7-Aminoindole 5192-23-4, 4-Aminoindole 5217-47-0, 1,3-Diethylthiobarbituric acid 5318-27-4, 6-Aminoindole 5345-47-1, 2-Aminonicotinic acid 5434-20-8, 3-Aminophthalic acid 5718-83-2, Rhodanine-3-acetic acid 5959-52-4, 3-Amino-2-naphthoic acid 6201-65-6, 2-Chlororesorcinol 6259-50-3 6399-72-0 6532-16-7, 1-Morpholinomethylisatin 6628-04-2, 4-Aminoquinaldine 6967-12-0, 6-Aminoindazole 7169-34-8, Coumaranone 7336-20-1, Disodium 4,4'-diaminostilbene-2,2'-disulfonate 7411-49-6 7575-35-1, N,N-Bis(2-hydroxyethyl)-p-phenylenediamine 7749-47-5, 2-Amino-4-methoxy-6-methylpyrimidine 7768-28-7, 2-(2-Hydroxyethyl)phenol 13129-67-4 13129-68-5 13129-69-6 13754-19-3, 4,5-Diaminopyrimidine 14268-66-7, 3,4-Methylenedioxyaniline 15032-10-7 16082-33-0, 3,5-Diaminopyrazole 16867-03-1, 2-Amino-3-hydroxypyridine 19335-11-6, 5-Aminoindazole 20103-09-7, 2,5-Dichloro-p-phenylenediamine 22715-34-0, 2-Hydroxy-4,5,6-triaminopyrimidine 23244-87-3, 2,4,5-Pyridinetriamine 23894-07-7, 3,6-Dihydroxy-2,7-naphthalenedisulfonic acid 24119-24-2 28020-38-4, 2,3-Diamino-6-methoxypyridine 29539-03-5, 5,6-Dihydroxyindoline **41927-50-8** 41946-53-6 49647-58-7, 2,4,5,6-Tetraaminopyrimidine sulfate 50899-59-7, 1-Hydroxymethylisatin 53003-19-3 53003-20-6 53666-79-8 53760-27-3, 4,4'-Diaminodiphenylamine sulfate 55302-96-0, 2-Methyl-5-(2-hydroxyethylamino)phenol 56216-28-5 58262-44-5 58979-56-9 61693-42-3 62496-02-0, 2-Methylamino-4,5,6-triaminopyrimidine 64258-84-0 66566-48-1 66635-40-3 68549-78-0 69984-77-6, 7-Aminobenzimidazole 70643-19-5, 2,4-Diaminophenoxyethanol 74918-21-1 79352-72-0 83732-72-3 84540-47-6, 2,6-Dihydroxy-3,4-dimethylpyridine 84540-50-1 84677-32-7 85679-78-3, 3,5-Diamino-2,6-dimethoxypyridine 85926-99-4, 4-Hydroxyindoline 90817-34-8, 3-Amino-2-methylamino-6-methoxypyridine 93841-24-8, 2-(2,5-Diaminophenyl)ethanol 93841-25-9 104333-09-7 110102-86-8 114402-54-9 115423-86-4 128729-30-6 130582-56-8 135043-64-0 137290-86-9 144644-13-3 159661-42-4 202525-71-1 202525-73-3 202525-74-4 202525-75-5 202525-76-6 202525-77-7 202525-78-8 202525-79-9 215377-39-2 215377-40-5 215377-41-6 215377-42-7 215377-43-8 215377-44-9 215377-45-0 215377-46-1 215377-47-2 215377-48-3 215377-49-4 215377-50-7 215377-51-8 215377-52-9 215377-53-0 215377-55-2 215377-56-3

RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(use of substituted isatins to dye **keratin** fibers)

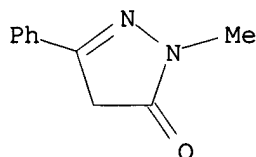
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RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(use of substituted isatins to dye **keratin** fibers)

RN 41927-50-8 HCAPLUS

CN 3H-Pyrazol-3-one, 2,4-dihydro-2-methyl-5-phenyl- (9CI) (CA INDEX NAME)



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